



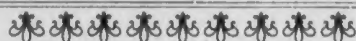
And WEATHER AND CROP JOURNAL.

NINETEENTH YEAR, No. 12.

MILWAUKEE, DECEMBER, 1894.

\$1.00 per Year. 10c. per Copy.

Suggestions for the Repair Season.



BOLTING CLOTH.

OUR arrangements for the direct importation of bolting cloth are as favorable as can be made by anyone, and we can therefore meet any competition. We handle only the very best, and every yard is guaranteed. Our bolting cloth order book is very handy and will be sent upon application. Send us your diagrams of cloth wanted and get our bed rock prices.

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WHEN you need an extra roller mill, scalper, flour dresser, centrifugal reel or purifier to improve your cleanup or quality of flour, drop a line to The Edward P. Allis Company. Most everyone knows of the high quality of our machines, and they need but little introduction. The best thing about them is that they are being sold at 1894 prices.



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THE EDWARD P. ALLIS COMPANY,

MILL BUILDERS,

RELIANCE WORKS.

MILWAUKEE, WIS.

Cawker's American Flour Mill and Grain Elevator Directory

FOR 1892-1893.

CONTAINS: 1. A list of Flour Mills in each State, Territory and Province, with names of owners, P. O. and County, in thousands of instances giving their capacity in barrels per day, kind of power used, etc., also indicating such firms as are supposed to be worth \$10,000 and upwards. Total number of mills given, about 18,000.
2. A list of miscellaneous mills, such as Corn, Oatmeal, etc.
3. A list of Millwrights
4. A list of Grain Elevator Owners and Grain Dealers.

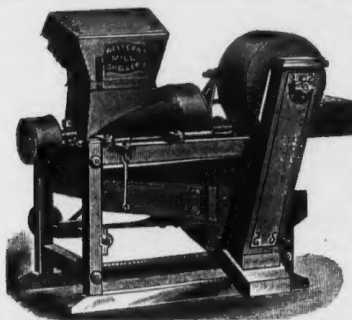
5. A list of well-rated Flour Brokers, Merchants and Bakers in all parts of the United States and Canada, which has been compiled with extraordinary care, capital and credit being considered in the compilation.

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The price IS INVARIABLY TEN DOLLARS PER COPY, on receipt of which it will be sent, post-paid, to any part of the world. The complete work only is sold. We do not supply lists for single states. These Directories have been issued every two years since 1878, and have been declared indispensable by the prominent mill-furnishers, flour brokers, millers, etc. of this country and Europe. Address,

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Takes up but Little Room.
Runs at Low Rate of Speed.
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It is in every respect the
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NOTE.—Will send this Sheller to any responsible party, giving time to test thoroughly, and if not as represented in every respect, will pay freight both ways and all expense of setting.
Yours truly,
A. R. MONTGOMERY, Sec'y.

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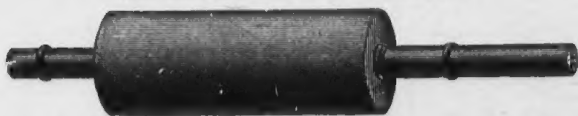
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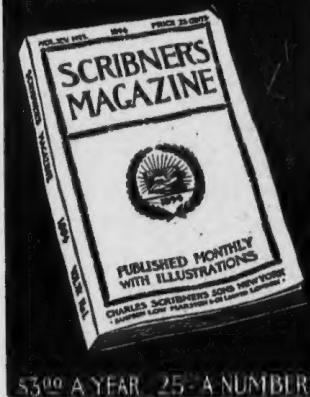
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WANTED.

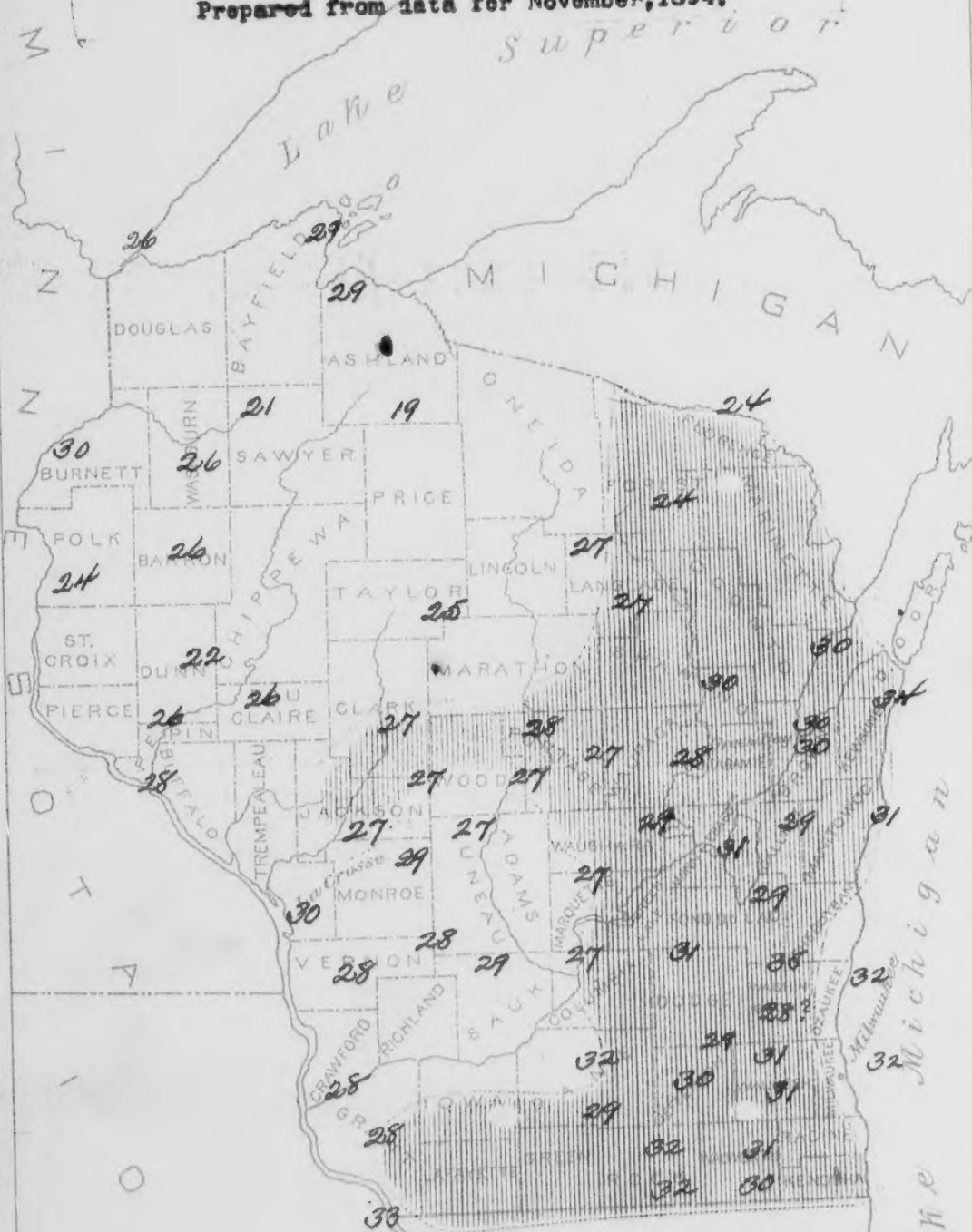
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SUPPLEMENT
to the
U.S. MILLER and WEATHER & CROP JOURNAL.

Prepared from data for November, 1894.



2 inches or more of Precipitation fell over shaded portion of the state, elsewhere the precipitation was less than 2 inches. The figures represent the Mean Temperature for the month.

S. C. Emery, Director,
Wisconsin State Weather Service,

Milwaukee, Wisconsin,
December 12, 1894.

THE
OFFICE
OF THE
ATTORNEY GENERAL
STATE OF NEW YORK

IN SENATE
JANUARY 10, 1906

REPORT
OF THE
COMMISSIONER OF THE
LAND OFFICE
FOR THE YEAR
1905
ALBANY:
J. B. LEECH, STATE
PRINTER
1906

THE UNITED STATES Miller

And WEATHER AND CROP JOURNAL.

NINETEENTH YEAR, No. 12.

MILWAUKEE, DECEMBER, 1894.

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MILLING FOR PROFIT.

Someone has well said that to make a success of life a man should know everything about one thing and something about everything; and certainly, if in these times a man would make milling pay, he must be up to every point, particularly in the manufacturing department. So much is meant by such little trifles aggregated in a week's or month's output, where such a bulk of produce is turned over each day, that in some mills the very sweepings would almost pay the men's wages. In the last article it was remarked that the miller should depend almost entirely on the manufacture for his profit, and to this end the highest paid man in his employ should be the man in charge of this department, that is, if he is not his own foreman. The miller who is paying his travelers 40s., 50s. and 60s. per week, and his mill foreman 30s. or 35s. had much better reverse the order; if he puts a good man in the mill and pays him well the flour will need less volubility to dispose of it.

"Attend to the details of your business" is said to have been the motto of the founder of the famous financial house of Rothschild, and that saying may well be borne in mind by millers; but the reposeful content of the immortal "Miller of the Dee" has many imitators to-day, and though the content is admirable the lethargy if may produce is deplorable. This is often painfully evident in mill management, and is a fruitful source of waste and extravagance. Wherever a leakage occurs, whether of oil, or flour, or water, or time, it is a loss to the source from whence it comes, and is almost certain to be the harbinger of greater calamity. There is an axiom too often overlooked by managers and foremen, "Make it easy to do right and hard to do wrong." The successful mill manager wins the respect of his men, and they study by anticipating his will to conciliate his regard, but he, in his turn, has made good every defect and deficiency in the machinery and accessories, as well as in the structure of the mill. Such a man will stir in the breast of every employe a pride in the mill in which he works, which is of priceless value. Good men everywhere deplore the want of real interest in the mill shown by too many masters, and losing heart, exclaim: "Oh, it's no use to take a bit of pains." "It doesn't matter" is the bane of many a man's life. I see that legend writ large and in in-

delible characters outside on the roof, inside on every floor, and in every corner and cranny of some mills I visit. This is the curse of many a business, dulling the edge of enterprise and effort. Bear in mind that everything matters, and must tell materially in the profit and loss account.

Foresight is very requisite that delays and stoppages may be avoided. Every hour a twenty-sack plant is delayed, provided there is trade to be done, means a direct loss of at least £2. Spare parts and change covers must be kept in stock; belts and gears should be looked to periodically when

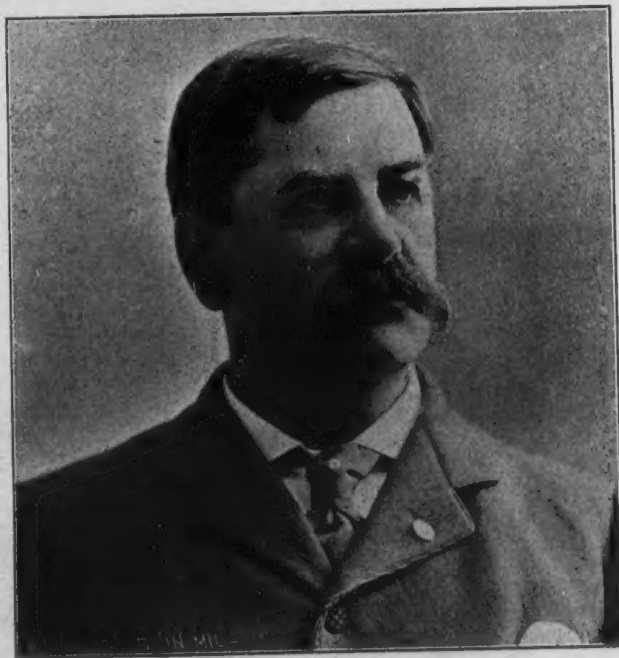
cudgels for the uniformity of the nomenclature of miller's offals while he is about the equalization of weights in merchants' quotations. Ask half a dozen different millers for a sample of "Pollard," and you will get samples varying from small bran passing through 8-wire to a product little worse than low-grade flour, passing through 100 GG. Nearly as much difference as between the various samples of F.A.Q. Plate wheat one sees about.

See, then, that the subdivision of your merchantile produce is done on scientific principles—do not be afraid

out the pros and cons of every move to which this mixed and mixing business lends itself. The art of mixing and separating makes a science of chemistry and an industry of milling of hardly less importance than the actual manufacture.

Leaving the paper-and-pencil side of the question, we must enter the important realm of the rule of thumb and finger. The actual operation of flour-milling is one of the most interesting and enthralling occupations of our time, the infinite variety it admits of, the possibilities opened up, and the patience and skill it develops are amongst its chief charms. The fierce competition of this time has bristened us all up, and some of our modern mills are perfect models of administrative ability and industrial skill, letize the smallest detail. To visit such an establishment is an intense pleasure to any methodical mind, and no effort should be lost to profit by such opportunities. Lately I met a milling friend from the West in Manchester; I found he was on his way North to see one or two good mills, and see if they were doing any better work than his own mill. Wise man! That little trip must have paid him a thousand times over. He returned with a little "wrinkle" or two, which should be of good service to him. Besides he had looked at his own mill from an outside critic's standpoint, and this is how every man should occasionally stand in relation to his business. "Times are bad, I cannot afford to go to the Convention," I have been told a score of times within a month. My retort is, "You cannot afford to stop at home, if your business is not paying you had better go away and learn how to make it pay; if you could go to Belfast and make £20 more a month on your bran than you are making now, or learn how to treat the Argentine wheats better, or how to make a decent sack of wheat-meal, you would save 50 times more than you can by grubbing and grumbling at home." A man may stop at home till he knows nothing. With his nose always on the grindstone, a man will hardly be able to see the proper rotating of the stone, yet it must not be forgotten that it is inside the mill the money is made.

Your wheat has come in—preferably up an elevator and not hoisted—has been weighed on a side platform and shot into a hopper at the elevator bottom, passing through a warehouse separator, or some rough cleaner, to the hoppers bins—an iron reel, or



GOVERNOR-ELECT WM. H. UPHAM.
WISCONSIN'S MOST PROMINENT MILLER.

the mill is still, for we must never lose sight of this fact, that noise and jar are power running to waste, like steam blowing off at the safety valve.

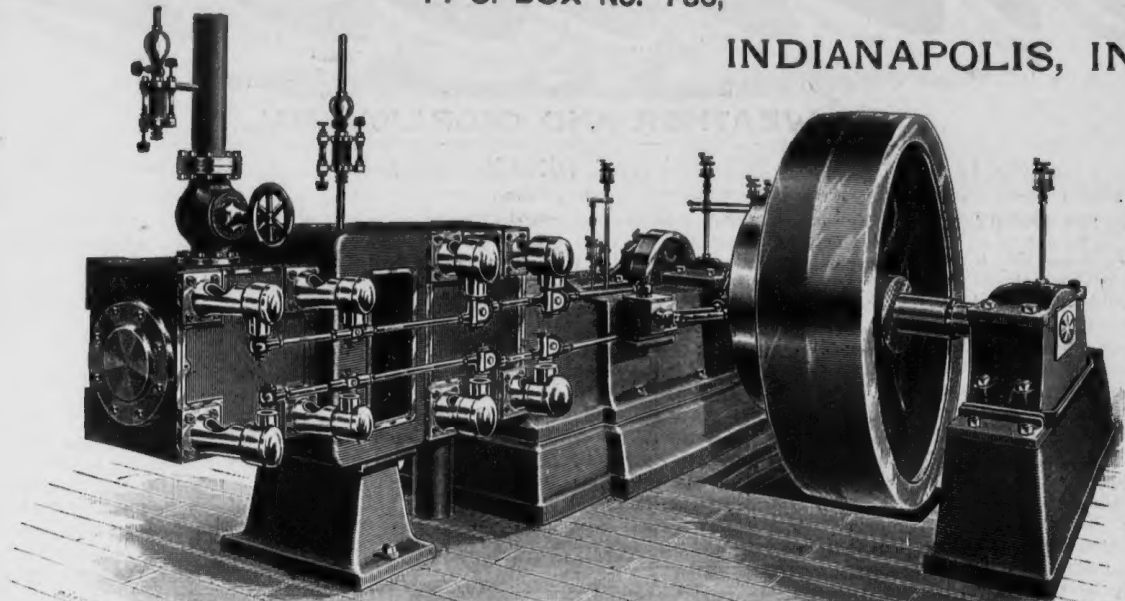
Further, the miller should always fall back upon paper and pencil as he goes from product to product, calculating with absolute accuracy the chances of profit from this or that adjustment or dressing, according to the demands of his customers. Sometimes it pays to take out a little broad bran to sell separately, sometimes it pays to grind up small bran on a pair of stones or fluted rolls and mix with a little low grade American flour into the "Pollard" or "fine sharps." Mr. Ibbotson might well take up the

of the adjective, for scientifically it must be done to be of any use at all—on exact lines. The proper utilization of waste products comes in here. The grinding up of screenings and their proper disposal; the mixing in of extracted barley or oats to barley meal or rolled oats; the proper classification of all exhaust products, and in some cases the damping of small wheat and rye from the screen room and subsequent mixing of same into the bran pays well. I notice a Liverpool firm has taken out a patent for a process somewhat on these lines, but I fancy prior use can be shown of some very similar method. All these points affect the man who can figure

ATLAS ENGINE WORKS,

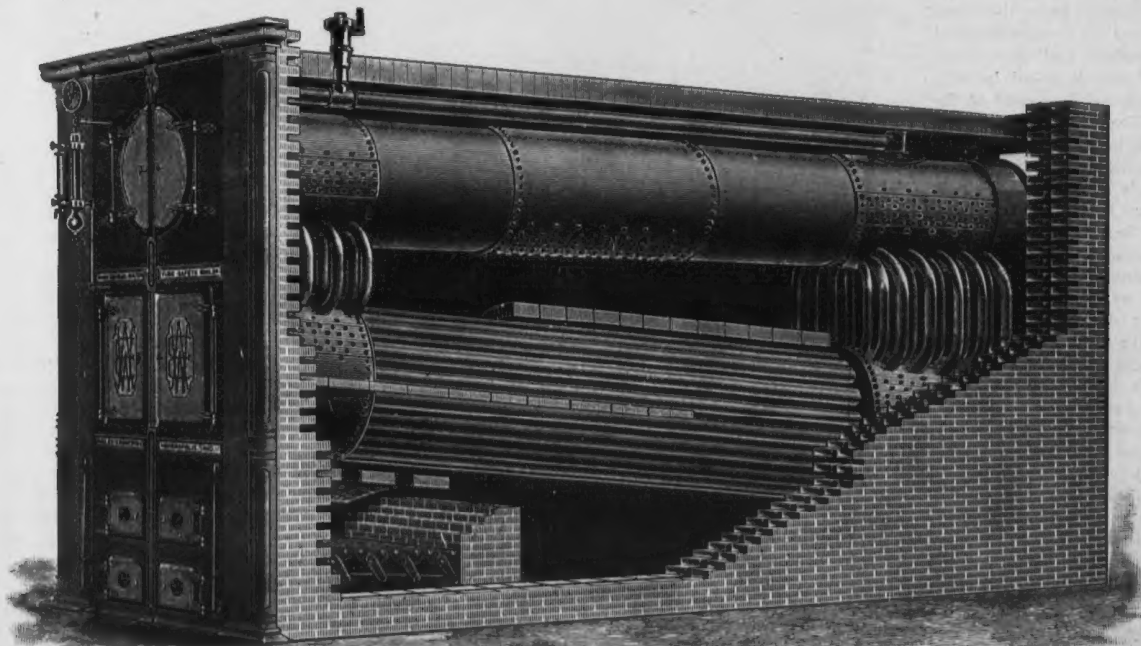
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IN RECOGNITION OF THE ALWAYS UNSATISFIED DEMAND FOR BETTER RESULTS IN PROGRESSIVE STEAM ENGINEERING, THIS COMPANY, IN RESPONSE TO THE CALL OF HIGHER EDUCATION IN SCIENCE, OFFERS THE LINE OF ENGINES AND BOILERS HERE ILLUSTRATED, AS THE LATEST AND BEST EXPRESSION OF ADVANCEMENT IN THE ART OF USING STEAM.



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ORGANIZATION OF MILLERS IN THE UNITED STATES.

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inter-elevator, has the advantage of not requiring any dust-catcher.

Mixers at the bottom of these bins are useful to ensure regular proportions, but particularly to clean and condition wheats separately the former process is most essential, except when of similar physical structure. It is very necessary to remember that 1 per cent. of impurities extracted in the screen room allows of 2 per cent. more flour being made in the mill of equal quality. The difference between 1 per cent. of screenings and 2 per cent. of flour is usually worth considering. All possible separations should be made before washing or damping. Washing or damping and conditioning should also be done to suit each wheat. The central idea is that wheats should be alike when going to the mill, and as they are generally different to start with, if they were all treated alike they would be different when they are ready for grinding. Scouring and brushing should be done just prior to grinding, and not between drying and cooling, and double brushing usually pays. Well cleaned and prepared wheat makes easy milling.

The mill is the amphitheatre of our struggles for "branless flour and flourless bran." The wheat is weighed on an auto-weigher as it comes in tons, to begin its varied course through roll and scalper and purifier, etc., until its destiny in flour or offal sack is reached; and who shall describe its hair-breadth escapes and crucial crises? Insist on regular feeds; there will be no variation whatever at the feed-gates, provided the wheat is kept right. There must be no over-crowding, no sending of coarse stock down amongst fine stock; keep the pure, good stock at the head end of the mill, give sizing-rolls plenty of room for impure stock, and feed pure stock freely to the rolls, giving them as much as possible without making them sweat or over-facing them. Get the finished offal away as soon as you can, both from breaks and purifiers and dressing machines; adjust the rolls accurately, and keep sight and touch of break and earlier reductions. Avoid flaking of stock; keep the rolls well exhausted and cool. Keep your break rolls sharp and let your scalping be done gently; the same applies to your grading. You may do more harm grading and dusting your middlings

and semolinas than you can do good in subsequent purification. Those long huge reels do just as much harm to semolinas as stones did to the wheat meal. Avoid making flour from your stock before purification; purify well, grind lightly, dress coarsely for a strong flour, but do not run your head against trade customs. You might as well try to educate a heathen Chinese as a baker; he thinks he knows his own business best, and very properly too, but if he would only listen to reason and take a suggestion, he might get useful hints and aids from a miller. Do not, however, obtrude your opinions on him. Make him what he wants and he will thank you. Tell him what he ought to have and he will do anything but bless you. The great point in milling is to have a keen appreciation of little differences. Everything hangs so much together in a modern automatic mill, that some one man must be in touch with each department and have an intelligent grasp of all. Purification is an important process, but of late it has been so much the vogue to exalt it far above aught else, that to emphasize its value would be superfluous. By all means purify well, but purify well early in the system; primary purification is of primary importance; secondary purification is of secondary importance, very secondary. Do not imagine you are going to make patents from bran middlings by elaborate purification; it is not in it.

Sampling is an essential detail in mill working. Have samples taken daily from everything everywhere; see them yourself, and be quite sure somebody else sees them. Make a point of comparing one day's work with another, and if things vary, find out why they vary; if things go wrong, find out why they go wrong; if things choke and cause waste, have them altered at once—they will not go right of themselves, and you had better put them right at once.

Look after the proper lubrication of all bearings, so as to ease the coal bill. If your engine takes more than two pounds of coal per hour alter it, or pull it out and put in gas or a better engine. If you have water, make the most of it, but never run with a low head long; you had better stop and let the head get up.

Selling.—We must consider later, as this subject requires special treatment, but a word may be allowed as to rock

less over lapping of travelers, who scour the country, practically picking up the very men local millers are glad to be rid of as customers. Such men land their principals in countless debts, thereby increasing the risk and worry out of all proportion to any prospective return. One large limited company actually show book debts amounting to upwards of £50,000, and this for only a 3,000 per week plant means an inordinate risk. If a principal is careless, indifferent, or unmethodical, the same spirit goes through the place. Indifferentism about your debts is the most malignant form of the disease, and inoculates the customer in a marvelous manner. It must be clearly understood from the first that you do business on such and such definitely-defined terms, and these will soon be respected. The satisfaction of returning large weekly sales is more than neutralized by one or two doubtful payers standing over, or collapsing into actual bankruptcy.—Cautious Conservative, in the Miller, London.

A FEW DULUTH ZEPHYRS.

The mills made a good run the week of November 24th, though the total product does not show up as high by 6,000 barrels as it would if some of the mills had not been forced down for short intervals for trivial causes. The exact figures are 90,218 barrels, which is 13,131 less than was made in the week preceding, and an average of 15,035 barrels daily, compared with 102,344 barrels made in the week earlier, 80,429 barrels in the corresponding week a year ago, and 37,420 barrels two years ago. During this week, which is probably the last of navigation, the mills, barring mishaps, should make close to 110,000 barrels of flour, and they will do it if they run the entire week.

The shipping season is virtually closed, and vessel room is in brisk demand just now, though it must be said for the lines, that they have been very prompt in placing boats at the mills, whenever it was possible, and no very great wall for vessels has gone up from the millers, so far. Ice in the slips about the harbors has formed from two to four inches in thickness, and the present cold wave is making it still thicker. A mild spell of a week or ten days is looked for yet this fall, and if it comes, a surprising amount of flour will be shipped. Flour is held at an advance of 5 cents per barrel. Still the Eastern markets are reported firmer, and it is believed that if prices remain firm, as they no doubt will for a time, a good advance can be realized.

On December 1st, the head of the lake mills will abandon the use of the old fashioned hickory hoops for barrels. The flat hoops, they claim, make a tighter package and prevents the sifting of flour from between the staves.

MICHIGAN CROP REPORT.

The total number of bushels of wheat reported marketed by farmers in October is 1,144,654. Of this amount 295,106 bushels were marketed in the first or southern tier of counties; 268,580 bushels in the second tier; 182,544 bushels in the third tier; 254,432 bush-

els in the fourth tier; 124,285 bushels in the fifth and sixth tiers, and 19,707 bushels in the northern counties. At 20 elevators and mills from which reports have been received there was no wheat marketed during the month.

The total number of bushels of wheat reported marketed in the three months, August, September and October, is 3,620,728, which is 1,033,292 bushels less than reported marketed in the same months last year.

Corn is estimated to yield in the southern counties and the state, an average of 40 bushels of ears per acre. The area of clover seed harvested in the state is about 55 per cent. of the area in average years. The yield is estimated at 1.31 bushels per acre. Compared with a full average crop, potatoes are estimated at 53 per cent. in the southern counties, 54 per cent. in the central, and 47 per cent. in the northern counties, the average for the state being 52 per cent. Live stock is in fairly good condition.

The following statistics are from the farm statistics for 1893-4: Acres of wheat, 1893, 1,533,071; bushels, 24,432,201; yield per acre, 15.94 bushels. Acres of wheat in May, 1894, 1,287,865. Acres of corn in 1893, 797,797 bushels of ears, 37,761,594; average per acre, 47.33 bushels. Acres of oats in 1893, 843,406; bushels, 22,323,976; average per acre, 26.47 bushels.

A FOREIGN TRADE CONFERENCE.

The Manufacturers' Association of Cincinnati and Hamilton County, Ohio, have taken the initiative in a movement for the extension of our foreign trade which merits the hearty support of every miller and mill furnisher of the country. This association, desiring to promote the prosperity of the manufacturing interests of the entire country, have invited the commercial exchanges and manufacturers to send delegates to a conference of manufacturers, to be held in Cincinnati January 22, 1895, for the purpose of a general interchange of views looking to the formation of a National Association of Manufacturers, to advocate legislation to encourage manufacturing industries, to discuss ways and means whereby trade relations between the United States and foreign countries may be developed and extended, and to establish in South American capitals and other desirable points permanent expositions for the display of American products.—American Miller.

IN THE SHENANDOAH VALLEY.

Scott Abbott wrote as follows from Harrisonburg, Va., to the Millers' Review recently:

Milling in this locality is good. All the mills are running on full time, with a good demand for their entire output. The firm of J. C. Beery & Co., of this city, has been changed to the Beery-McFall Milling Co. *This firm confines its business to the export trade, and have a steady demand for all their production. Mr. Simeon Heatwale, near here, has recently put his new mill in operation, with very satisfactory results, the well-known firm of Aug. Wolf & Co. being the contractors. Wheat is being marketed quite freely at the prevailing low prices, and a great deal is being used for feed. The acreage sown is about the same, and the crop looks well.

LAKE SUPERIOR MILLS.



Lake Superior Mills,
SUPERIOR, WIS.
6,000 Barrels Daily Capacity.
L. R. HURD, Manager.

DAISY ROLLER MILL CO.,
PROPRIETORS.

Daisy Roller Mills,
MILWAUKEE, WIS.
1,800 Barrels Daily Capacity.
H. E. BROOKS, Manager.

News Notes.

Washington, D. C., Dec. 5.—The returns from the correspondents of the statistical division of the department of agriculture relative to the amounts of wheat fed to stock estimate the quantity already fed, that is to say, up to Oct. 30, at 46,030,000 bus. and the estimated amount to be fed 29,273,000 bus., making a total of 75,303,000 bus. The figures on which the feeding is based are merely the meager estimates from the states wherein the correspondents have complied with the request of the department and must not be taken as anything more than an attempted approximation of the local feeding of wheat from present supply.

The severity and length of the winter will necessarily influence the final findings upon this question.

The Illinois State Millers' Association yesterday decided to refuse to join the movement for a general shut down of all mills in the United States.

Western flour millers are getting their ideas up faster than the market for either wheat or flour is going, and they manage to keep 10 to 15 cents ahead of the views of buyers here.—Journal of Commerce, N. Y.

The scarcity of corn in the West and the cheapness of wheat has induced the hog owners to test the value of wheat as a feed, and the result has been very satisfactory. Wheat has put fat on hogs to the valuation of \$1.30 per bushel, while the price of wheat in the market is about 55 cents

Thousands of bushels of wheat are now daily being fed to hogs.

There is evidently something to be found out relative to the tonnage that lays up at Chicago for winter storage of wheat. The following circular has been sent out by general agents of insurance companies. An invitation to insurance agents to meet at Detroit, November 26, to consider the inspection of vessels which are to take on grain for winter storage has been sent out by Chicago agents. They say that every winter much grain is damaged by being stored in vessels on account of the boats being out on commission. They would remedy this by requiring a certificate from the underwriters' inspector that they are fit to receive grain before being allowed to load. The lines of insurance are being drawn tighter and we will soon learn that vessel owners will protect themselves by entering into a mutual marine insurance system whereby some of the most expensive traits of carrying on a general office will be avoided.

The Champion Mills, operated by H. and L. Deal Milling Company, under the superintendency of Jas. M. Cook, have just finished a contract of five tons of buckwheat flour for a single firm, probably the largest order ever given to any Somerset County mill for this staple winter delicacy. The mill is rushing business right along, manufacturing their several grades of flour, which are very popular alike with dealers and consumers.—Millers' Review.

H. J. Gulden, Bendersville, Pa., has lately put in a penstock, three water wheels, gearing, etc., for C. Coyle, Carlisle, Pa.

Isaac R. Himmelwright has lately sold his mill property and 55 acres of land in Montgomery County, Pa., to William Himmelwright for \$9,500.

George Walters & Sons, Butler, Pa., have purchased one 36-inch Munson Portable Double Geared Mill from Munson Bros., Utica, N. Y.

During a heavy rainstorm last month John Prizer's mill dam at Kimberton, Pa., was washed out, causing considerable loss, amounting, it is said, to \$5,000.

A milling firm at Doylestown, Pa.—Swartley Bros. & Co.—publishes a double-column advertisement, three-quarters of a column deep, in a local paper, telling about their kiln-dried cornmeal, their choice brands of flour and facilities for grinding grists. The advertisement is a good one and the example of that firm ought to be more generally followed.

Aug. Wolf & Co., Chambersburg, Pa., through James J. Pollard, their general Central agent, have secured the contract of Moore, Mick & Co., Crawford, W. Va., for a 30-barrel mill.

A. F. Weitzel, Mount Nebo, Pa., writes: Business is good; I have no local competition. My high-grade flour sells for \$3 per barrel; second grade, \$1.90; corn (out of field), 72 pounds, 50 cents; 32 pounds, 35 cents; wheat, 50 and 52 cents. Large fields of wheat have been sown in this neighborhood.

There is not so much feeding of cattle done here as there was last year.—Millers' Review.

The Florida Milling Co., Florida, O., has placed a contract with the Barnard & Leas Mfg. Co., Moline, Ill., for machinery to remodel their mill.

M. N. Harts, general Atlantic agent for Aug. Wolf & Co., Chambersburg, Pa., has secured the order of Henry Waukele, Roxborough, Philadelphia, Pa., for a complete 20-barrel flour milling, blending and separating plant.

Mr. D. Wells is overhauling the Elkton Flour Mills at Elkton, Ore., that was washed out last spring, and will put it in shape. To commence work on the same, some few supplies will be needed.

Eugene needs a good roller flour mill. There is money in it for any person who has the necessary capital and experience. There is an excellent local market for mill products in Eugene.—Eugene (Ore.) Guard.

Millers will have an opportunity of making an exhibit of their output at the Portland Universal Exposition that opens on December 1st, closing January 15th. This will be a good opportunity for the many millers to find out who will be awarded first prize for fine flour.

Think of a mill making 329½ barrels of flour every hour, 5½ barrels a minute! That is the unmatched record of the Duluth Imperial Mill Co. made on the 23d of last month. It turned out 7,905 barrels that day, beating the best record, held by the Pillsbury "A" mill, by 750 barrels. The Imperial is

an Allis mill and was designed by W. D. Gray, of that concern.

Newark, S. D., men started a mill.

Gurley, Ala., men plan a 50-barrel mill.

S. Hauer, Bethel, Pa., improved his mill.

J. Dorris, Elgin, Tex., builds a corn-mill.

C. Coyle, Carlisle, Pa., improved his mill.

G. Wittig, Brock's Gap, Va., builds a mill.

Hurley, S. D. men started the Wedel mill.

The Woodward, Pa., mill remodels to rolls.

C. H. Phelps, Suffield, Conn., refits his mill.

H. Bly, Ironville, N. Y., started a flour mill.

C. W. Willis, Tyrone, N. Y., remodels to rolls.

The Jackson, Tenn., Milling Co., refitted mill.

T. Reyn, North Haron, N. Y., refitted his mill.

Percy & Kincaid, Eastwood, Ky., refitted mill.

J. E. Beard & Co., Broadway, Va., build a mill.

W. O. Pease, Somers, Conn., improved his mill.

J. Huffman, Gallatin, Tenn., started a corn-mill.

Long & Caron, Roxboro, N. C., built a corn-mill.

C. A. Winsor, Binghamton, N. Y., refits his mill.

W. M. Carner & Co., Quitman, Ark., build a mill.

W. D. Haycock, Tracy, Minn., improved his mill.

Harper & Smith, Camp Branch, Va., built a mill.

J. A. Nutty & Son, Paperville, Tenn., built a mill.

W. Searson, Raphine, Va., builds a 20-barrel mill.

J. R. Purcell, Vertrus, Ky., builds a 40-barrel mill.

The Hopewell, Pa., mill sold to F. B. Biggs & Son.

Lumpkins & Co., Waynesboro, Tenn., built a mill.

B. D. Lewis, Elk River, Va., builds a 50-barrel mill.

The Arden, Pa., Milling Co. build a 125-barrel mill.

W. J. Funston, Gath, Tenn., builds a 40-barrel mill.

E. C. Williams, Ellington, N. Y., improved his mill.

The Lane Milling Co. leased a mill in Ottawa, Kas.

Smith & Huber, Guthrie, Ky., build a 40-barrel mill.

Moore, Bros., Cincinnati, Ark., build a 50-barrel mill.

W. L. Woodnut & Co., Hutchison, Kas., build a mill.

Morgan & Killian, Clyde, N. C., build a 50-barrel mill.

The Victor Milling Co., Wichita Falls, Tex., refit mill.

White & Snyder, Clark Mills, Pa., improved their mill.

J. Sours bought a half interest in the Hadley, Pa., mill.

Canton & Co., Irwin, Pa., leased their mill to J. P. Taylor.

J. W. Bradley, Palmersville, Tenn., built a 40-barrel mill.

H. S. Russell, mill, Cannonsville, N. Y., sold to G. S. Brasie.

The Sherburne Mill, Sherburne, Ky., build a 60-barrel mill.

S. Engle, Berlin, Pa., sold his mill to D. Altwater for \$3,000.

H. Lord, Oswayo, Pa., leased his grist-mill to C. M. Hallock.

J. S. Borden & Co., Toms' Brook, Va., build a 30-barrel mill.

E. W. C. Edwards, Hopkinsville, Ky., builds a 40-barrel mill.

The Biscay Mill Co., Biscay, Minn., sold their mill for \$3,500.

W. A. Cummings, Aspen Grove, N. C., builds a 50-barrel mill.

R. G. Gaston & Co., Hominy Creek, N. C., build a 40-barrel mill.

W. Sprague, miller, Harrisville, N. Y., traded his mill for a farm.

The Sprague Flour Mill, Rochester, N. Y., sold to Woods & Gunn.

H. H. Shrewsbury & Bro., Shrewsbury, Ky., build a 40-barrel mill.

Wm. Moyer, Rebersburg, Pa., sold his mill to C. L. Gauly for \$1,850.

J. P. Scott, Fayetteville, Ark., let his contract for a 150-barrel mill.

W. P. Sykes, Cleveland, Tenn., builds a 30-barrel water-power mill.

The Anchor Milling Company has gone into the hands of a receiver. H. T. Fowler, president of the Northwestern National Bank, was appointed.

The company lacked ready cash. The assets are estimated at \$300,000 and the indebtedness will not exceed \$125,000. The court instructed the receiver to run the mill and fill all contracts.

This action was taken on application of W. A. Wilkins, secretary and treasurer of the company, to protect himself and other creditors. The company lacked ready cash but is strictly solvent. The plant is worth \$300,000, and the indebtedness will not exceed \$125,000, of which \$25,000 was due and pressing. There will be no interruption of the mills filling orders.

Apropos of all the talk of Western flour millers shutting down in order to allow accumulations of flour, which are depressing the markets of this country and Europe, to work off, a dealer said: "It reminds me of what the late David Dows told me of a similar attempt of the millers of this state who controlled the flour market in old times, the result of which was that every miller in the agreement ran his mill full time in expectation that everybody else would shut down, and a worse glut of flour than before was the consequence."

Pillsbury's A mill made a run of 9,551 barrels in twenty-four hours one day last week, which is said to be the largest run of a single mill on record.

Is it not remarkable that all sorts of information comes from Argentina in regard to its crop? There are any number of provinces, presumably in all sorts of condition. The favorable reports come from the good, and the unfavorable from the poor provinces. But the contrariety of the reports was well illustrated by the advices yesterday. One cable announced that the crop would be about 30 per cent. less than last year's, about 20,000,000 bushels less; another cable said the crop would be 16,000,000 bushels more than last year's.

Hoffman & Son, Kansas City: The factors in Kansas are exceedingly bullish. The drought is doing severe dam-

age to crops. It has already ruined a great many fields. We do not know of any time at this time of the year that the prospect was worse than at this time. Wheat feeding is going on at an ever-increasing ratio, and wheat is actually getting scarce, and already many mills find it difficult to get wheat to run on. We predict an absolute scarcity of wheat before another crop. Many mills will have to go to Kansas City for wheat or else be compelled to shut down.

Shellabarger Mill Company of Decatur, Ill.: We never saw a time when wheat apparently was as scarce and hard to buy. Recently we sent out in the neighborhood of fifty offers all over the central and western part of the state offering 50 cents for \$2 wheat, and these offers were at a number of stations where the rate was as high as 12 cents to Chicago, and we have not succeeded in purchasing a single car based on those offers. The last three weeks we have reduced our stocks 30,000 to 40,000 bushels owing to the fact we are unable to buy to replace what we are grinding. We cannot help but believe that the bulk of the wheat is out of the farmers' hands, and country elevators are practically bare.

A practical farmer and president of Douglas County Agricultural Society, Neb., for the last two years, says: Unless we get rain or snow, and plenty of it, this whole western country will be abandoned in another year. Lakes and rivers are drying up, wheat that was sown this fall is not sprouted yet, and I don't think ever will now. This is true in portions of Iowa, Kansas and all of Nebraska. The farmers are driving fifteen to twenty miles buying corn from each other and paying 50 cents for it. Hay and all other feed is getting very scarce.

The "Manufacturers' Record" of Baltimore has compiled from advance reports of the United States Agricultural Department the production of corn in each of the Southern States, showing an aggregate increase in the South in 1894 over 1893 of 48,000,000 bushels, making a total production in the South of nearly 500,000,000 bushels. There was a gain as compared with 1893 of 1,000,000 bushels in Virginia, 5,000,000 in North Carolina, 6,200,000 in South Carolina, 1,500,000 in Georgia, 6,000,000 in Alabama, 10,000,000 in Mississippi, 2,000,000 in Louisiana, 8,000,000 in Texas, 6,000,000 in Arkansas and 4,400,000 in Tennessee. Owing to the increase in the South and the large decrease in the West, the South has this year produced more than one-third of the total corn crop of the United States.

It was reported that the Superior mill failure was due to millers having been free sellers of flour along back before the advance, and that they had not bought their wheat, and that the late advance in wheat was what broke them. Another report was that they were long of December at the advance, and that the decline caught them and that their long wheat came on the market today and broke it.

The Cincinnati "Price Current" says: Calculations recognizing yield and pre-

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vious surplus indicate invisible wheat holdings over entire country 1st November 58,000,000 smaller than last year; and, including visible, the total is 47,000,000 under last year. Wheat feeding continues liberally but less actively. As previously expected, portion of growing wheat urgently needing moisture, but average position is fair. Corn movement enlarging but not notably.

C. W. Carter & Co., Luray, Va., it is reported, will erect a steam flour mill at once.

Valentine Steck, Willow Hill, Pa., has contracted with Aug. Wolf & Co., Chambersburg, Pa., to build him a complete 25-barrel roller flour mill.

William Foutz, Rockbridge Baths, Va., it is reported, contemplates building a flour mill.

The Mill and Elevator Co., Luray, Va., has contracted with Aug. Wolf & Co., Chambersburg, Pa., through their Southern representative, John T. Pensinger, for a complete 75-barrel Wolf roller system flour mill.

Thomas Sterrett will probably build a flour mill at Timber Ridge, Va.

Wheat in Central and Western Kansas is not in nearly so critical a condition as reported. True the plant needs moisture, and does not look as well as at the top as before the freezing weather, however, when examined, the roots are fresh and full of life, and the crowns of the shoots are thrifty and vigorous. The crop, taken as a whole, shows the wonderful adaptability of Kansas soil to nourish plant life under the most adverse conditions. With a fair supply of snow and winter moisture Kansas will be able to produce another phenomenal wheat crop in 1895.

The following is the detailed statement of last week's production of the

Pillsbury-Washburn Mills record breaking run of over 122,000, given by mills:

	Total for Week.
Pillsbury "A" Mill.....	55,943½
Pillsbury "B" Mill.....	31,805
Anchor Mill.....	13,731
Fallside Mill.....	21,004

Lincoln Mill, not running, capacity... 390

Total capacity of five mills.....130,873½
Average daily capacity.....21,812½

D. Martin, of Hunter, N. D., says the farmers in that vicinity will probably sow a reduced acreage of wheat and increase the area sown to flax and barley. But little flax in that vicinity was sown this year, but south of there some farmers had in large areas, in some instances 2,000 acres.

Corn figures from Iowa are startling. The total reaches less than 81,000,000 bushels compared with 250,000,000 bushels the year previous. An average of 12 bushels per acre for the banner corn state is a calamity.

Large country elevator lines in Northwest decreased wheat stocks 343,000 bushels last week. Smaller lines decreased stocks but 145,000 bushels and private houses at Minneapolis decreased 29,000 bushels, making total decrease of 517,000 bushels for the week outside of visible supply stocks.

The visible supply of grain in the United States and Canada, as compiled by George F. Stone, Secretary of the Chicago Board of Trade, is as follows:

	Dec. 8, 1894.	Dec. 1, 1894.	Dec. 9, 1894.
Wheat, bus.....	85,978,000	85,159,000	78,783,000
Corn, bus.....	6,600,000	4,866,000	6,150,000
Oats, bus.....	9,146,000	9,740,000	4,611,000
Rye, bus.....	453,000	477,000	580,000
Barley, bus.....	3,582,000	3,809,000	2,873,000

English visible supply of wheat decreased 1,300,000 bushels for the week.

The Prosser, Wash., roller mills that have been closed for some time have resumed operations.

Elgin, Oregon, is very anxious to have a flour mill; the country surrounding is one of the best wheat raising sections in the state; the Grand Ronde valley adjoins one part of the place.

Several experienced mill men with capital have been looking over the milling situation at Eugene. They now realize that that city is one of the best locations for a flour mill in the state, something which we have reiterated more than once, but "seeing is believing" every time. Before another year has rolled 'round we expect to see a mill in steady operation there.

The mill at Scio, Oregon, has received several car loads of Eastern Oregon wheat from Walla Walla. They intend to mix the Walla Walla and valley wheat, thus making a better grade of flour. This was the same work that the Northwest Flour and Shipping Company embarked on, and if it had been properly managed that company would have made a success of the enterprise. It is rather strange that other mills do not try this idea of blending the two wheats into one grade of flour; it has been tried and proved successful; and, moreover, the flour would command a better price and quicker sales.—Portland Review.

Charles W. Quinn, a well-known business man of Tacoma and one of the proprietors of the Cascade Flouring Mills, on Jefferson Avenue, died suddenly at his home, on Sixth Avenue

and Bee Street, Saturday, of consumption. Mr. Quinn, who was a brother-in-law of John W. Berry, president of the Cascade Oatmeal Company, came to Tacoma about a year ago, and was the chief promoter in establishing the flouring mill in connection with that plant. He was a practical miller of many years' experience, and at the age of 21 had charge of the big Pillsbury mills at Minneapolis. He was 38 years old at the time of his death.

The statement of the great Pillsbury Flour Mills in Minneapolis shows that they realized but 5 cents a barrel net profit on their output last year.

The Big Bend flouring mills at Davenport, Wash., have put in electric lighting machinery.

The Novelty Flour Mills of Seattle, shipped 2,040 barrels of flour to Hong Kong last week.

Another mill, it is reported, is to be built in Portland by Oregon parties, with a capacity of 150 barrels per day.

A great many of the interior mills in Oregon are working on orders for the Orient trade. They maintain they are getting better prices than any other place they could ship to.

R. M. Miller and M. Swartout, two Everett, Washington, citizens, will establish a flour and feed mill at Everett shortly; grinding wheat from east of the mountains and doing custom milling for the grain grown nearer home.

Chapman & Yount will probably build a flour mill at Henry, N. C.

It is stated that a roller flour mill will probably be erected at Charlotte, N. C., by C. L. Shriver, of Bristol, Tenn., who has been prospecting with this idea in view.

H. J. Klingler & Co., Butler, Pa., report a large crop of fine buckwheat this year. They say they are making probably the best flour they ever turned out. Pennsylvania buckwheat is noted for its sweet flavor, and on this account they are making large shipments into as many as fifteen different States. The freight rate on one order for the far Northwest was 92½ cents per 100 pounds.—Millers' Review.

Paul Smith, Cropseyville, N. Y., has purchased three improved Bendersville Flour Bolts from H. J. Gulden, Bendersville, Pa.

Woodman Bros., Langhorne, Pa., will build a complete 40 to 50-barrel roller mill, and have contracted for the plant with M. N. Harts, general agent for Aug. Wolf & Co., Chambersburg, Pa.

J. W. Dalton, Boonesville, Va., is building a corn mill.

I. W. Dorland, German Valley, N. J., has contracted with Aug. Wolf & Co., through their general Atlantic agent, M. N. Harts, for a complete 30-barrel Wolf system roller mill.

Aug. Wolf & Co., Chambersburg, Pa., have entered an order to furnish McCauley Bros., Hanging Rock Mills, W. Va., with the necessary machinery for a complete 20-barrel roller mill.

George F. Keeley, formerly of Glen Moore, Pa., has lately removed to Oatland, Va.

S. H. Heatwale, Hinton, Va., will build a 30-barrel roller mill, and the contract was secured by Jno. Penning-

er, general Southeastern agent for Aug. Wolf & Co.

Thos. Wentz's mill, at Bethesda, Pa., has been sold to David Earnhart. He has remodeled it to the roller system, Aug. Wolf & Co., of Chambersburg, Pa., doing the work.

J. T. Price and N. Viar are building a mill at Jack's Mill, Va.

A \$50,000 flour mill is to be built at Spartansburg, S. C.

A bonus of \$15,000 has been raised for a grain elevator at Mobile, Ala.

A Mr. Huber is equipping a mill at Ghent, Ky.

Gibson & Pinkston may build a mill at Harrodsburg, Ky.

Marcus Mill Co., Marcus, Cherokee County, Ia., have ordered from Barnard & Leas Mfg. Co., Moline, Ill., a full and complete outfit for a 35-barrel mill on the Plansifter system. Also boiler feed mill.

The old Carter mill at Weatherford, Tex., is being refitted, and will soon begin operations as a new flour mill under the management of McCleskey & Bean.

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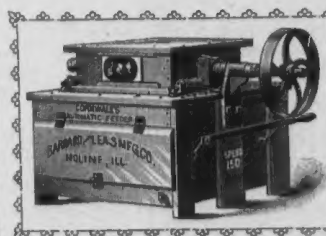
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MILWAUKEE, DECEMBER, 1894

We respectfully request our readers, when they write to persons or firms advertising in this paper, to mention that their advertisement was seen in THE UNITED STATES MILLER. You will thereby oblige not only this paper, but the advertisers.

Editorial.

NOT MUCH "ME, TOO."

Milwaukee millers were not very much "me, too," in regard to the Chicago concatenation's resolution to curtail the output.

The mills of Milwaukee are just now running half time, and one of them is shut down, but both of these incidents are usual and annual. Milwaukee millers are like the rest of Milwaukee merchants, independent, conservative, each sufficient unto himself for all the requirements and purposes of his own business. The Milwaukee miller does not let any one tell him how to run his business. He will curtail when he thinks that his business, not the business of any or all other mills, demands it.

That is the way most of the other merchants of Milwaukee act, by the way; and that way of conducting themselves has made a successful Merchants' and Manufacturers' Association here almost an impossibility. Milwaukee merchants do not seem to be very sociable as merchants, though they may in some instances be great friends for other reasons.

But while the rule of everybody for himself and the devil take the hindmost obtains generally in Milwaukee, the merchants are solid from practices of economy in business and at home. They are enterprising, with certain safe reservations. Hence Milwaukee flour mills are very liable to keep running and do as much or more business than any other mills of their size in the country. Milwaukee is not given to booms and reactions, drunk Sundays and blue Mondays, and Milwaukee millers will

not curtail to help out millers of different business methods anywhere else.

At this time, the beginning of December and the close of navigation, the flour mills of the city have begun to cut down their forces, and it is probable that several of them will soon close for several weeks. The Sanderson mill has already closed for an indefinite period. It was stated at this mill yesterday that the shut-down might last for three days or three weeks. All depended upon the demand for flour in the East. Every year at the close of navigation the rates on flour and other commodities to Eastern markets go up. This year they have risen unusually and are now \$1.60 above the rates which prevailed prior to the close of the season of navigation on the lakes. Eastern buyers have expected this and have laid in large supplies of flour that will last them for several months. They have learned that the rail rate is above the lake rate and always take steps to provide against paying it. It is quite probable that more of the mills will shut down within a short time. The only Milwaukee mill not affected is that of the Wisconsin Milling Company, which handles only corn which is ground into grits, hominy, etc. It is the largest mill of this description in the country, having a capacity of 800 tons a day. Nearly all of its product is shipped to the South, and the lake rates do not affect it.

Harry Sanderson, of the Sanderson Milling Company, stated recently that the Milwaukee millers were divided upon the question of curtailing the output. Nothing has happened in Milwaukee as a result of the meeting recently held in Chicago to consider the advisability of operating the mills on half time from December 10 to March 10. It is claimed by St. Louis journals that if this plan were pursued the output would be sufficient to cover the demand.

This, however, may be viewed in another light, for it is generally understood that St. Louis markets are overstocked, and if such a plan were agreed upon it would give St. Louis an advantage over Milwaukee, where little flour is held in stock. Some temporary difficulty in securing wheat, as well as the recent advance in freight rates, gives rise to the division among Milwaukee millers.

According to Mr. Sanderson, the whole matter was in a chaotic state, awaiting developments.

Judge Seaman dismissed the plaintiff's demurrer to the defendant's answer in the case of Samuel Alcorn against the E. Sanderson Milling Company on the ground of insufficiency. The special objections of the judge relate to counter-claims resting on the allegation of partnership liability. Other counter-claims, in the opinion of the court, did not come within the subject of the suit. The proceeding is for the enforcement of a claim for 12,000 damages for violation of a contract, by which plaintiff was given the right to sell the product of the mill in New York and for dividend on stock bought

by him. The company claimed that the dividend was applied to paying for the stock. The plaintiff has twenty days in which to file a reply.

This is the confidential way a Milwaukee Yankee miller talked through his hat just after he came out of that central meeting in Chicago:

"The millers are confronted with a glutted market and the meeting at Chicago was to suggest remedies. It was agreed to curtail the output of all the Western mills one-third for one month. Over 600 millers, it is understood, have agreed to the arrangement. The millers claim to be selling flour at less than cost. The arrangement will go into effect before the end of the month."

"The usual weekly output of Milwaukee mills," said Mr. Kern, of the Kern mills, recently, "is about 45,000 or 50,000 barrels, but for the present, and for an indefinite time in the future, the output will be nearer 30,000 barrels a week."

Manager Kern said that his mills were running and would run half-time for a while, and he said that he understood that nearly all of the other mills were running half-time except the Reliance Mill, and that had been shut down. Mr. Kern said that he did not think there was any other reason for the curtailing of the output in Milwaukee than the close of navigation and the maintenance of flour prices in the East, based on cheap lake freights. Mr. Kern said that his company had advanced the price of flour 15 cents a barrel to correspond with the difference between the lake and the all-rail freight rates.

Manager Manegold, of the Reliance Mill, said that the mills were usually shut down at the close of navigation for a few weeks, but this year, he stated, there was another reason.

On account of the close of navigation the freight rates on flour to the East have advanced 20 cents a barrel, but the price of flour in the East has not advanced accordingly. "Until it does," Mr. Manegold said, "the mills of Milwaukee cannot get a margin of profit on Eastern shipments."

The Edward P. Allis Co., as owner of the Clark patents on flour dressers, has entered suit in the United States Court against the George Tileston Milling Co., of St. Cloud, Minn., who are using flour dressers manufactured by the G. T. Smith M. P. Co. These are the patents that were contested in the Patent Office for over six years by the Smith & Co.

The U. S. Miller will be sent free for six months to any address, for the first notice reaching us of a new flour mill to be erected at any point in the U. S. or Canada.

THOSE MICHIGAN HUSTLERS.

Secretary Reynolds, of the Michigan State Millers' Association, has sent us a copy of a lively circular letter containing a history of the Association. The following are some of the closing paragraphs:

Within the last few weeks the Association has done some excellent work in showing up the practices of certain

commission men, in handling consigned flour, which, as a preventive of this ruinous practice, ought to be worth many hundreds of dollars to the trade.

So much for the work of the Association in the past, hastily and imperfectly given. What of the future? If a fourth of all the millers of any importance in the state can do so much, what could they not do if the other three-fourths would join them in the work?

Much that has been done, has been of direct and lasting benefit to every miller in the state; this being particularly true of the reduction in the price of roll work, and the legislative work that has been done.

Will millers outside of the Association longer rest content, and allow these and many other benefits to come to them at the expense of this Association, when the cost is so small, and might be made still smaller by an increase in membership?

I hope the responses to this letter, so widely circulated, and so well intended, will be so general and so prompt, that that question will be forever answered in the negative.

Mr. Reynolds calls especial attention to the following resolution:

"Resolved, that it is the sense of this meeting that each member of this Association should from this until the next meeting labor with their neighbors with a view to getting them to join the Association, and that they report at the annual meeting in person or by letter the result of their efforts."

WE SHALL NOT MISREPRESENT.

In the edition de luxe of the Roller Mill for November it is stated that the United States Miller has been misrepresenting the milling industry. That may have been the case, but it will not be.

The editorial management of the United States Miller was changed last month, and while the new management may not be as editorially didactic and critical as formerly, it will never willfully commit misrepresentation. The new management of the Miller has no animosities, nor is it opinionated. We would increase harmony and co-operation among the millers of the country, defend good reputations, and we offer these pages for such use as will best represent and develop the great industry of the United States flour mills. Selfish schemes and cliques will not get any assistance in this paper. The United States Miller will be independent and fair and endeavor to be champion of American protection for American millers and grain dealers.

ARE WE IMPURE?

There is a man in Buffalo who publishes the Milling World, a paper that epitomizes the world of the flour and grain trade once a week in a very intelligent and popular manner. The issue of December 8 contains the following fraternal synopsis, and it was a most pleasant surprise:

"Our esteemed Milwaukee cotemporary has donned a new dress of fine type and extended its name to the United States Miller and Weather and Crop Journal. Another change is the adoption of a yellow cover. The publishers are the United States Miller Company. We miss the name of Editor Seamans from the head of the editorial column. The Journal is evidently preparing to extend its lines considerably beyond the field of mill-

ing pure and proper. We wish it success."

If the grain field, especially the wheat field, is not a part of the milling field "pure and proper," then we may be a little impure and improper.

The spunky little Market Record of Minneapolis defended Minneapolis last week as follows, after giving figures which never lie:

"This shows that the roads are charging Minneapolis millers 42 per cent. more for a haul from Minneapolis to Chicago than they charge the Duluth-Superior millers from Minneapolis to Chicago. These figures also show that there has been an over-charge of 31 per cent. going on all summer, as the same roads which charged 7½ cents then now offer to do the same work for Duluth-Superior, with the haul in a different direction, for 5½ cents. We would ask: Where is the justice in that kind of work? Minneapolis has patronized these roads all summer and paid 31 per cent. above the rate to others, and now that winter is upon us they stand ready to work further injury by charging 42 per cent. more than to others."

EVERYBODY NOTICES OUR NEW DRESS.

The United States Miller has been reorganized and "redressed," and now bears this title: The United States Miller and Weather and Crop Journal. H. S. Seamans has retired from the editorial chair.—Modern Miller.

The Modern Miller flies this at the masthead of its editorial columns:

"The day will come when the Minneapolis millers will be glad to put Kansas hard wheat on their product, as three-fourths of the flour coming from the United States will be shipped from Kansas, Oklahoma and other Southern states."—London Corn Circular, Oct. 15, 1894.

COMMUNICATIONS.

Editor United States Miller:

I have heretofore pointed out the various efforts to keep exportable products in the country with the vain hope of raising their purchasing power. One of the latest of these is a scheme for a flour trust. And yet one of the biggest of the millers in the United States has been a persistent bull on flour for months past, with the result that now the stocks on hand are found to be embarrassing. The scheme of the proposed trust is a shut-down of the mills of Minneapolis, St. Louis, Milwaukee, Chicago and other points for six weeks. This would involve a loss of production amounting to 15,000,000 barrels and would enable the millers to run the price up 50 cents or \$1. Its effects on the wheat market may be imagined. In fact, nothing could be more disastrous to the general trade of the country than such a move as this, which could not be initiated were the currency reduced to its normal level.

T. C. EDGAR.

Milwaukee, Dec. 10.

LONE STAR MILLERS.

The millers of Texas have adopted the following constitution:

1. The name of the association shall

be the Millers' Association of Texas.

2. The objects of the association are the mutual benefit and protection of the milling interests of Texas.

3. The officers of the association shall consist of president, three vice-presidents and one secretary and treasurer combined. In addition to the above officers, two other members of this association, making seven in all, shall constitute the executive board. All officers, including executive board, to be elected annually, and hold their respective offices until their successors are elected.

4. The headquarters of this association shall be at Dallas, Texas. General meetings shall be held every three months at the headquarters of the association on the second Saturday of December, March, June and September. Special meetings of the executive board of the entire association are subject to the call of the president whenever or wherever he sees fit.

5. The initiation fee to be \$10, with monthly dues of \$2 per month. If this amount is found inadequate to conduct the affairs of the association, the executive board has the authority to assess each mill for additional amount to meet current expenses. It shall be the duty of the executive board to conduct and control the entire affairs of the association and appoint such committees for different purposes as they deem best for the interests of the association. All meetings to be presided over by the president, if present. These by-laws may be changed by a majority vote of the members at any regular meeting of the association, or at any called meeting when due notice has been given to all the members of such contemplated change.

6. Any milling company of Texas wishing to become a member of this association may do so on payment of \$10 initiation fee and a signed willingness to abide the constitution and by-laws of the association. Any member of the association failing or refusing to pay the monthly assessment may, at the discretion of the executive board, be suspended from membership. Any member of the association wishing to withdraw from this association shall give three months' notice to the executive board through the secretary.

MILL ACCIDENTS.

Most of the mill accidents happen through a carelessness resulting from familiarity. As long as an operator is afraid of his machine he is not apt to get hurt. The only way to lessen the number of casualties in a mill—they cannot be avoided entirely—is to take all precaution in placing guards over or around running machinery and belts that circumstances will permit of, and post up rules printed in large letters warning the employees what not to do. Something of this kind is required of the owners if they wish to escape costly damage suits. Leaving trash on the floor near running machinery, which is liable to cause one to slip or stumble, is a fruitful source of casualties. When all possible precautions have been taken, one can only then trust to luck, and if the frightful list of casualties is lessened we may call it good luck.

HOWARD WANTS TO KNOW.

Congressman Howard would like to know Where Grover got his far-famed dough.

Of bonds and stocks he owns galore, Where ne'er a cent he owned before.

When Grover left the Governor's mansion He boasted but a pair of "pants."

Since sailing with Bold Ben, the broker, He seems aboard the boat with Croker.

—Unknown Genius

WHEAT FEEDING.

This experience in wheat feeding is given by David Balo, an Ohio farmer. He had fifteen pigs that came about the 10th of April, 1894. They had little during the summer but grass—no clover. On August 20 he engaged them for 5 cents per pound, to go away in October. The weight on first date, fifteen pigs, was 1,304 pounds; weighed the wheat and began to feed wheat by soaking twenty-four hours before feeding. Fed nothing but wheat for thirty days. The hogs had the range of a five-acre grass lot with plenty of water in it. The last eighteen days he fed new corn in the ear with wheat. The hogs were delivered October 8. Weight of fifteen pigs, 1,304 pounds; value, \$65.20. Fed sixty-four bushels of wheat, at 48 cents per bushel, \$30.72. Fed twenty-five bushels of corn, at 50 cents per pound, \$137.50. Deduct hogs October 8, 2,750 pounds, at 5 cents per pound, \$137.50. Deduct \$65.20, the first price of the hogs, and \$12.50 for corn from the \$137.50, and you have left for the wheat, sixty-four bushels, \$50.80. That is certainly better than selling wheat at 48 cents.

In writing from Jansen, Jefferson County, Nebraska, a subscriber of the Price Current says: "I notice you have recently given no correspondence from Nebraska, and while I hesitate about intruding myself upon you I will be glad to furnish you such information from this region as may be desirable. I farm and control about 4,000 acres in Jefferson County, southeast portion of the state. Have lived here twenty-one years, and was among the first settlers who came here from South Russia in 1873. Our corn crop is very poor, the lightest crop by 50 per cent. since I

have lived here. Wheat was fair, about 15 bushels per acre; is all being fed. I am feeding 12,000 head of Western sheep, and expect to feed 80,000 bushels of wheat this winter. No cattle being fed in the county. Plenty of young pigs, and they are being fed on wheat. Wheat planted this fall about 75 per cent. of last year's acreage that was harvested. Very dry and windy, and wheat suffering."

The indications in regard to wheat feeding are that a moderate decrease is now shaping, but this is consistent with previous calculations, and the recent estimates are undoubtedly being justified by the current absorption of this grain by animals. It is interesting to note the confirmation which the government statement affords of the estimates which have been submitted by the Price Current. Four weeks ago this paper reported 40,000,000 bushels as the indicated disposition of wheat by feeding to animals, and approximately 75,000,000 bushels as the total for the season, based on information obtained by an extensive special inquiry. The government figures now promulgated are 46,030,000 bushels as the quantity fed thus far, and 29,273,000 bushels as the probable quantity to be fed, making a total of 75,303,000 bushels.

THE U. S. MILLER O. K.

Mr. Gregg Boorman has an excellent sketch of milling journals in Printers' Ink of Nov. 21. He concludes the sketch as follows:

"Milling papers that stand well in their particular fields are: The Roller Mill, Buffalo, N. Y., a monthly; the Southwestern Miller, St. Louis, monthly, and the United States Miller, Milwaukee, Wis.

RUDY'S PILE SUPPOSITORY

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THE MILLER'S LATEST CROP NEWS.

TEXAS.

Nov. 26.—Very little wheat has been sown in the state so far and that sown is doing very poorly. Some correspondents state that there is not enough of moisture in the earth to cause the seed to grow and germinate, hence a poor stand generally.

Farmers gathered some corn during the week and in some localities the crop is about gathered, while in others a good deal is still standing in the fields.

INDIANA.

Seymour, Jackson Co.—Corn has matured and much is already garnered. Recent rains have improved the condition of the wheat crop, which at the end of the month is fairly good. Fall pasturage is short because of the drouth, and many farmers are feeding the stock.

Vevay, Switzerland Co.—Fair and pleasant weather characterized the month. The crops have been secured in fair condition; the growing wheat has suffered some from the drouth but the rains at the end of October have greatly benefited its growth.

Marion, Grant Co.—Wheat and fall pastures are in excellent condition; the weather has been quite favorable for their growth; corn gathering has commenced; it is in good condition for cribbing; the yield is fair and the quality good.

South Bend, St. Joseph Co.—The very large acreage of wheat sown in this county is in best condition at the end of the month; much corn has been sown to wheat. Pasturage is in good condition and stock also.

Crawfordsville, Montgomery Co.—The month has been warm and nice in general. Farmers were busy gathering a good crop of corn. Wheat looks well, pasturage is good and there is plenty of stock water.

NORTH DAKOTA.

Dickinson, Stark Co.—The weather in Stark County (the first week excepted) has been excellent for shipping, business and agricultural pursuits. The market gardener has rejoiced over the good things produced by his arduous labor. Perhaps never in the history of the county has such an abundance of vegetables greeted the husbandman. Cattle shipments, too, have been heavy (from Stark, bringing in one million dollars).

SOUTHERN CALIFORNIA.

Ventura Co.—The weather has been clear and cold with no change in conditions since last week. Dry plowing for grain has begun for grain under favorable conditions; all available land will be cropped the coming year.

Riverside Co.—The days were warm and the nights cool. Oranges and lemons are promising. Barley and wheat are being extensively sown. Everyone is hoping that the winter rains will begin by December 15th and that a bountiful harvest may result.

Orange Co.—The mornings were generally foggy. Barley sown early is coming up nicely in places and is doing well as the fogs keep it from drying out.

CORN UP, WHEAT DOWN.

Washington, D. C., Dec. 10.—The returns to the statistical division of the Department of Agriculture for December relate principally to the average farm price of the various agricultural produce on the first day of the month. By farm prices is meant the price at the farm or at the nearest local or railway market. In comparison of these prices with commercial quotations allowance must be made for cost of handling, transportation, profits of dealers, etc. The farm price of corn averaged 45.6 cents per bushel, which is 9.1 cents higher than the corresponding price of last year, which was 36.5 cents per bushel. This price is 6.3 cents per bushel higher than the average price for the decade 1890 to 1899, and is just 4 cents higher than the average for the four years 1890 to 1893. The average price of wheat is 49.8 cents per bushel, the lowest price in the past twenty-five years. This price is 33.9 cents less than the average for the ten years 1890 to 1899 and 22.1 cents less than the average for the four years 1890 to 1893. The returns make the general price per bushel of rye 50.5 cents, which is 1.3 cents lower than the price at the same date last year. The average farm price of oats as returned for Dec. 1 this year is 4.1 cents higher than for the corresponding date last year, being 32.9 cents per bushel, against 28.8 Dec. 1, 1893. The average farm price of barley is 44.3 cents per bushel against 40.6 cents for the year 1893, or a gain of 3.7 cents. The price for 1892 was 47.24 cents. The average price of buckwheat is 56.2 cents per bushel, against 59c for the year 1893, or a decline of 2.8 cents. The returns show the average price of hay to be \$9.18 per ton, while that of last year on the farms was \$9.12.

The average condition of corn is 45.7. The condition of winter wheat on Dec. 1 averaged 89, against 91.5 in 1893 and 87.4 in 1892. In the principal winter wheat states the percentages are as follows: Michigan, 92; Indiana, 88; Illinois, 91; Kansas, 72; Nebraska, 76; California, 92. The returns of correspondents of the department make the acreage of winter wheat sown last fall 103 per cent of the final estimate of the area harvested in 1894, which was 23,518,796 acres, a larger figure than the preliminary estimate given out in June last, which, upon further investigation, was found to be too low. This preliminary estimate therefore makes the area sown for the harvest of 1895, 24,224,000 acres.

IOWA CROP REPORT.

Des Moines, Ia., Dec. 10.—The final report of the Iowa crop service for 1894 was finished today. The showing of aggregate products is better than was deemed possible; if the freezing weather is deferred and there are good rains, these deficiencies may be corrected, but the general stamina of the plant is less satisfactory than a year ago. A special report on the quality of corn indicates about 77 per cent. of the crop merchantable, or in round numbers 1,100,000,000 bushels, the smallest since 1883.

THE MILLING WORLD AS A NEWS BOILER.

—Alford, Ia., men started a mill.
—J. B. Masolowski, mill, Dyer, Ind., sold out.
—S. Oyer's feed-mill, Ashford, N. Y., burned.
—Culver & Kelly, Audubon, Ia., refitted mill.
—Doehler Bros., Waukon, Ia., refit their mill.
—The Algona, Ia., spent \$3,000 in remodeling.
—J. J. Short, Vail, Ia., sold his mill for \$20,000.
—S. Foot leased the East Troy, Wis., Roller Mill.
—The Schults Mill Co., Okawville, Ill., dissolved.
—The Marcus, Ia., Mill Co. build a 35-barrel mill.
—Miller & Son, North Lima, O., refitted their mill.
—W. O. Ebersole & Co., Munson, Ia., remodel mill.
—The Hambleton, Ia., Milling Co. started their mill.
—Jones Bros., Samaria, Idaho, build a 50-barrel mill.
—L. Gilchrist, mill, Walker, Ia., sold to C. G. Newell.
—J. G. Roeschels, Cassville, Wis., added a feed outfit.
—H. H. Bremerkamp, Decatur, Ind., refitted his mill.
—The Artesian Roller Mills, Springfield, Ill., refitted.
—D. Fulmer, mill, Oil City, Wis., sold to C. F. Kiesner.
—K. L. Tanner, mill, McKinney, Ky., sold out for \$7,000.
—Appleman & Longabaugh, Findlay, O., started a mill.
—The F. M. B. A. Milling Co., Shelbyville, Ill., refit mill.
—Mead & McDonald, mill, Milton, O., now Mead & Prior.
—The Potter & Huntington mill, Barton, Wis., remodeled.
—J. Van Buskirk, Shenandoah, Ia., builds a 100-barrel mill.
—W. J. Hume, Bowling Green, Mo., builds an 80-barrel mill.
—Lash & Deal, mill, Farmersburg, Ill., now Lash & Jennings.
—Miller Bros., Vassar, Mich., added a buckwheat equipment.
—Crites Bros. & Co., Circleville, O., double their mill capacity.
—Hire, Anglin & Johnson, millers, Etna Green, Ind., dissolved.
—The Morgan Roller Mill Co., Jacksonville, Ill., remodeled mill.
—The Southern Grain Co., Rich, Mo., build a 150-barrel corn-mill.
—The Hatfield Milling Co., Decatur, add a 2,500-bushel corn outfit.

HOW EDGAR TALKS AT HOME.

This is the way W. O. Edgar, the Russian philanthropist, talked in Minneapolis about that "curtail" meeting in Chicago:

"The result of the discussion was a set of resolutions advising the necessity of curtailing the flour output of the country. That means, in brief, a partial shut-down to be agreed to by 500 millers who were represented in the conference. It is not an attempt to increase prices, as has been stated, but a movement to stop the constant overproduction now going on, so that

prices will not drop still lower. At the present time the conditions are such that the market price of a barrel of flour is less than the cost of production. This is the dull season of the year, for in the country mills the wheat to be ground is plenty, and so production is increased. In the country there is probably a daily output of a million barrels. Should the 500 mills represented in the committee, which have a daily capacity of 350,000 barrels, shut down at once, it would not affect the price of flour for some time. That shows plainly the necessity for a temporary curtailment of the product.

"A circular will be prepared with the results of the conference and submitted to the millers, favoring a run on part time until the market is relieved. In 1888 the same conditions existed at this time of the year, and a similar plan was formulated and carried into effect successfully. Some of the mills will be forced to shut down anyway, and most of them will run at a loss. The idea is to distribute the losses which must necessarily be incurred, and by a combined effort keep the market up until the stagnation is relieved. Of course in depressed financial conditions people do not buy in quantities, and consequently the grocers and jobbers limit their supply in proportion. Now if the production is the same the result is that there is more product forced upon the market than can be cared for, either at home or abroad, where the conditions are more changeable. The proposition submitted to the millers, if adopted by all, ought to relieve the market, while not increasing prices. Then the conditions can become equalized and a better market prevail, with the demand equal to the supply."

A DISTANT RIVAL.

The movement looking to the organization of all the milling associations in the United States into one body is taking on form, and present indications promise success. A meeting of delegates from the various milling associations of the country will be held at Chicago soon, the date not having been agreed upon at this time. The question of first importance to come before that meeting will be that of national organization. The most reliable information obtainable at this writing denotes that the Southwestern Winter Wheat Millers' Association, the Kansas State Millers' Association, the Winter Wheat Millers' League, the Michigan State Millers' Association and the Southern Minnesota Millers' Association favor the creation of a national organization, built upon the existing local organizations. It is believed, also, that practically all the state and sectional organizations favor the movement, the only difference of opinion being with regard to the plan of organization.—Modern Miller.

The U. S. Miller will be sent free for six months to any address for the first notice reaching us of a new flour mill to be erected at any point in the U. S. or Canada.

Correspondence.

DULUTH.

The history of the flouring mill business at Duluth for 1894 has been made and the concluding pages are more satisfactory than the opening chapters. While the past year has been, in many respects, a most depressing and unsatisfactory one in all branches of trade, yet in the flouring mill business at the head of the lakes all previous records have been broken as to the production and shipment, and the year closes more favorable to the milling men than the most enthusiastic operator had expected at the beginning of the season. The general export demand, as is well known, has been light throughout the entire year, and that situation was made more unfavorable to the mills in this country by the elimination of the foreign southern countries by the action of congress. Next to the Western European demand, that which came up from the outside countries lying south was the most desirable, and that, on account of the treaty relations and tariffs had been entirely obliterated. Cutting off, therefore, nearly one-fourth of the light export trade, and considering the fact that the year just closing has been one of the most inactive in all domestic quarters within the history of the present generation, it is not surprising that the mills have had an unusually hard time of it in disposing of their output. Prolonged strikes and idle foundries throughout the country are not productive of a large flour consumption on the part of the masses, and, consequently, the domestic trade has been on a par with the indifferent demand from abroad.

Those mills which had depended wholly upon a southern export trade or which have been in an out of the way place, so far as the home trade is concerned, have had an especially hard season to battle against and the wonder is that, with but few exceptions, all have been able to hold their own to the end. Of course, at the head of the lakes the mills are more fortunate on account of the cheap transportation to the seaboard for the foreign output and the equally cheap rates into the heart of the New England consuming territory, and will, in their final balance sheets, show reasonably fair profits. The mills here are new, equipped with the most modern machinery, constructed and operated with special view to good flour and economy, and these facts, taken in connection with their advantageous location, will account for the better showing that they are able to make than those mills at Minneapolis and other interior points. It will be remembered that recently the Minneapolis millers were disposed to poke considerable fun at the claim of the great Imperial mill at this point as being one of the best conducted large mills in this country and in the next breath the same syndicate which controls the big mills there was apologizing to the English owners for the inability to pay them any dividends for the current year. While the Imperial was steadily sending out its

dividend coupons to stockholders, the Pillsbury syndicate, on black bordered note paper, was writing its owners across the water that on account of the business paralysis which obtained throughout the New World, there would be no forthcoming dividends to cheer their Christmas assets. No one so far has charged that the English mill owners have not placed their mill property here in honest and capable hands; that there is no profit on the year's business can be attributed, as it would seem, wholly to the bad location of the Minneapolis concerns. Mr. Pillsbury has not only been hampered by his isolated position, rendering it impossible to buy his stock or to ship his product on an equal footing with the mills at the head of the lakes, but his territory has been invaded and cut into by the mills here, which may account for some of the differences in his sales. He has also been handicapped by old-fashioned facilities, by English espionage and interference of his policies and management. He has been forced to carry on an elevator storage business on a large scale, because the English were fearful of the methods of the home speculators. The syndicate has finally decided to go out of the elevator business. Besides all this, much money has been expended in attempting to patch up antiquated machinery in an attempt to compete with the modern facilities of the Duluth mills. But the chief explanation is expressed in the one word "location." Withdrawing all checks and interferences that may have been interposed on the part of the English owners, giving the home management over the property full swing, it is now evident that the Minneapolis mills are in no position to successfully compete with such plants as are here located at the head of the lakes.

The amount of flour manufactured at the head of the lakes during the navigable season of 1894, as compared with the same season last year, is shown in the following figures:

	—Superior—	—Duluth—
	1894.	1893.
April	44,677	44,677
May	159,137	74,800
June	292,093	94,901
July	137,244	99,181
August	252,014	128,000
Sept'mb'r	201,004	100,314
October	248,147	178,700
Nov'mb'r	200,237	104,338

Total 1,625,173 917,018 722,808 610,946

The run up to the close of navigation, especially during October and November, was especially brisk, the mills in November turning out a greater number of barrels than for any previous month. The record being 395,522 barrels of flour, which is very nearly an average of 100,000 barrels per week. The production and receipts of flour for November, as compared with the same month in 1893, were as follows:

	1894.	1893.
Production, Superior	290,237	194,338
Production, Duluth	135,285	135,098
Receipts	750,305	596,296

Since the close of navigation and during the past two weeks the high pressure has been withdrawn and those mills which have been in operation at all have been running at a leisurely rate, the output being but nominal. While there will be no concerted action for closing down any

definite period of time, it will be the policy of the mills to run irregularly, at their convenience, for the next month or two, by which time winter conditions of market and freight rates will have adjusted themselves, when a renewal of activity is expected. The most interesting question which confronts the millers now is that of transportation to the seaboard during the closed season, and until that is finally settled there will be no disposition to accumulate stock, and it is intimated that unless fair and reasonable rates are promulgated by the Trunk lines, there will be but little shipment of flour during the winter. So far the all-rail tariff remains on a basis of 37½ cents to New York, although it is expected that a 35 cent basis will be made public very soon. This will place the head of the lakes on a parity with Minneapolis, which began its 35-cent basis early in the month. Millers can make no quotations of prices for December and January shipment until this question is settled and this may have a tendency to bring some announcement from the roads within the next week or two. Quotations at this writing at the mills for car or round lots, per barrel of 196 pounds are:

First patents, in wood	\$3.25
Second patents, in wood	3.10
Fancy bakers', in wood	2.35
Export bakers', in wood	2.20
Low grades, in bags	1.90

A discount is made from flour in wood in favor of sacks, as follows: On 250 and 40-lb jute bags and 35-lb cotton sacks, 20c; 40-lb cotton sacks, 10c; paper sacks, 20c. In 24½-lb cotton sacks, the price is the same as in wood. In half barrels, 30c extra is charged. When packages are furnished by the buyer, 30c/35c is deducted from the price in wood.

While the past season will average fairly well with former years, so far as the production of flour and the profits on the business is concerned, marine interests, which are closely allied to the flouring and grain trade, would report that the year has been an unfavorable one; in fact, it is believed that when the balances are finally struck for the navigable season, it will be found that many of the boats have not paid expenses.

In a previous letter I stated that it had been demonstrated that the Imperial mill at Duluth was the greatest flour producing machine in the world. Since that writing the Pillsbury "A" has made a spurt and eclipses the Imperial record by several points. The total daily average of the big mill at Minneapolis is given at 9,323 barrels. When this bulletin came in on the Board of Trade, there was an impromptu war-dance, with Manager Church, of the Imperial mill, in the center. The managerie on 'Change had considerable fun with the genial Mr. Church, but the record stands, and the Imperial must take second place for the present. There is one record, however, that Mr. Church excels in, and a very material one by the way, and that is the dividend paying record. But as this may be a delicate subject for the Pillsbury "A," it will not be insisted upon.

The usual equality of the Duluth Board of Trade has been disturbed for some time past by a sort of "go as you please" rule as to commissions. The one cent a bushel rule which has prevailed, has been disregarded by some of the operators, and no little

confusion has been the result. Several meetings have been held and a demand made to abolish the rule, but it still remains. A committee has finally been appointed to devise some compromise measure and the matter stands until that report comes up. One of the disturbing features in this regard has been that the West Superior firms have all advertised to do business for ¼ cent per bus. on their board and it has been a serious question for the Duluth board to consider whether it will see business thus diverted which otherwise would come here. These Superior firms, many of them are members of the Duluth board, come over here and vote for the 1 cent rule and then go back home to advertise to do the same business in Superior for one-half of what is advertised here. These matters, however, will all be adjusted in due time and by the time when the splendid new building is ready for occupancy, the board will not only be the largest in the country, but in all probability, the most harmonious.

The new board of trade building, by the way, is to have something entirely unique in this part of the country. The board have just purchased, outright, from a telephone manufacturing concern 150 telephones. These 'phones will be used entirely to afford communication among the board of trade offices and there will be a central office just as in ordinary systems; the building is now being wired for this purpose.

The Imperial mill is running a portion of its machinery this week, but the grinding is not being crowded and while it may run more or less regularly during the month, it is expected that it will be idle during a greater portion of January, in fact it is now thought that almost all mills at the head of the lakes will be silent during that month and some of them possibly for a longer time.

It is with no little pain—Duluth cannot be annoyed by anything done by her erratic sister across the bay—that it is noticed the Superior Board of Trade is endeavoring to establish what it pleases to call the "Wisconsin System" of inspection, discarding the world-renowned Minnesota system of inspection, under which all the wheat which comes to the head of the lakes passes. From the earliest time when Western Minnesota and the Dakotas began to pour their bounteous crops into Duluth the present Minnesota system of inspection has prevailed and all the wheat which comes to the head of the lakes passes under it. The Superior board now desires to change this order of things and in that regard has some assistance from certain farmers in North Dakota. Recently, a delegation came down from the northerly state, with a complaint that their excellent Number 1 product is generally mixed with the inferior wheat of Minnesota and comes out lowered in the final inspection, in other words, they make a direct claim that the North Dakota wheat is a superior quality to that raised in Minnesota, and as a consequence, they want to be separated from the latter and to accomplish this, they are endeavoring to arrange for inspection under the services of another state. The whole

trouble is, and I suggest it to them as gently as possible, the gentlemen from North Dakota are mistaken in the quality of wheat they send to this market; it is no better than the Minnesota wheat: much of it is not so good. The remedy lies here: Sow better wheat and raise better crops and the final inspection will show better when they bring their wheat to market. If the farmer plants the best of seed and properly tills the ground in which it is sown, he is certain of the best possible price for his wheat in passing it through the hands of the Minnesota grain men, and every well-posted farmer of the Northwest knows the truth of this statement as well as do the commissioners of North Dakota, who are lending their aid to the Board of Trade across the bay to disarrange the present condition of things. Interests are too nearly allied, at the head of the lakes, to make it possible to build up two separate grain centers, and, as in the past, it will be in the future, the principal business will be transacted in this city. Here is centered the capital, the facilities and the prestige, which will control. In all legitimate ways, the Duluth Board of Trade has ever been willing and ready to assist the Superior traders, and it now points out to them that they would injure themselves if by any chance they succeeded in interfering with, or disturbing in any way, the well known and generally satisfactory Minnesota system of inspection.

A sale has just been made by the Duluth Board of Trade of the lot on which its old building was burned, for \$45,000, cash; fifty-foot front. This will make a neat lining for the composite Christmas stocking of the local bulls and bears.

J. F. H.

Duluth, Dec. 17.

NEW MILLS.

- Otisco, Ind., wants a flour mill.
- Childress, Tex., wants a flour mill.
- Ghent, Ky., will have a new flour mill.
- Waterloo, Ind., wants a new flour mill.
- Elkhart, Wis., will have a new flour mill.
- A new flour mill will be built at Green Bay, Wis.
- A new oatmeal mill will be built at Tekoa, Wash.
- O. M. Barger will erect a new flour mill at Silex, Mo.
- A new flour mill is being built at Weldon Creek, Mich.
- A new custom flour mill will be built at Atchison, Kas.
- Johnson & King will erect a new flour mill at Elva, Ky.
- The new flour mill at Stanley, Ohio, is completed.
- Sheridan, Wyo., will have a new 75-barrel oatmeal mill.
- A new steam flour mill will be built at Greencastle, Ind.
- J. A. Keith will build a new flour mill at Magazine, Ark.
- Schanck Bros. will erect a new flour mill at Gallon, Ohio.
- W. A. Harding will build a new flour mill at Hatton, Mo.
- A new flour mill will be built at Mountain Lake Park, Md.
- A new flour mill will be built at Roxie, Va., by Miller Bros.

- A new flour mill will be built at Greenville, W. Va., by Ellis Bros.
- K. P. Hill & Bro. will build a new flour mill at Louisburg, N. C.
- A. Rockefeller is building a new steam flour mill at Ancram, N. Y.
- A new flour mill is being built at Hiram, Me., by George R. Bean.
- C. N. Rust will build a new steam flour mill at Granby, Mass.
- A new flour mill is wanted by the citizens of Johnston, Wash.
- A small oatmeal mill will be constructed at Bridgeport, Wash.
- A new 100-barrel oatmeal mill will be built at McCammon, Idaho.
- The new flour mill at Pima, Ariz., has been placed in operation.
- Long & Carver have completed a new cornmeal mill at Roxboro, N. C.
- J. T. Price and W. Viar are constructing a new flour mill at Jack's Mill, Va.
- A new 40-barrel flour mill will be built at Casky, Ky., by E. W. C. Edwards.
- A new flour mill will probably be built at Charlotte, N. C., by O. L. Shriver.
- The machinery is being placed in the new flour mill at Redwood Falls, Minn.
- A large cornmeal mill will be built at Greensboro, N. C., by A. C. Rankin.
- A new feed mill will be erected at Kirby, Wis.
- W. F. Clock has started a feed mill at Bucoda, Wash.
- D. L. Botsford is building a feed mill at Little Valley, N. Y.
- Fred Krangle has started a new feed mill at Mapleton, Minn.
- Charles Welcos has completed a new feed mill at Little Prairie, Wis.
- O'Connell Bros. have started a new feed mill at Beechwood, Wis.
- Coulton & McLean have completed a new feed mill at Grafton, N. D.
- Hansons Bros. have commenced operating their feed mill at Swenoda, Minn.
- Hijek Bros. have commenced the operation of their feed mill in Howells, Neb.
- Wheeler & Johnson have placed a new feed mill in operation at Querah, Iowa.
- C. C. Deits & Sons are again operating their feed mill at Beaver Dam, Wis.
- A new feed mill with a capacity of 40 bushels per hour will be built at Kieler, Wis.
- Cross & Hoha have commenced the operation of their feed mill at New London, Wis.
- Mr. Erickson has repaired his feed mill at Hayfield, Minn., and placed it in operation.
- Aranston & Egan have placed their new feed mill at Dodge Center, Minn., in operation.
- Frank Bunker has purchased a windmill for operating his feed mill at Dyersville, Iowa.
- L. K. Rose has completed his new feed mill at Olin, Iowa, and has placed it in operation.
- Lincoln Ritchie and John Thompson have purchased the feed mill at West Middletown, Pa.
- Nelson & Tullis are at present operating their feed mill at New York Mills, Minn., every Friday.

- Hagerty & Burbank commenced the operation of their feed mill at Bethany, Minn., on November 23.
- William Totman is operating a feed mill in connection with his flour and feed store at Lancaster, Wis.
- Jens Jensen has purchased the old mill property at Evansville, Wis., and will convert it into a feed mill.
- Richard Stewart and Scott Ellis have recently completed a number of improvements in their feed mill at Franklinton, N. Y.
- C. E. Kidd & Co. have built a new feed mill at Morrison, Ill. Power is furnished by a 13-horse power Charter gasoline engine.
- F. A. Thiele has commenced the erection of a feed and exchange mill at Beatrice, Neb. The mill will be 24x30 feet, and two stories in height.

FIRES.

- Beloit, Wis., Nov. 22.—The large flouring mill owned by C. B. Salmon was burned to the ground this morning; loss, about \$37,000; insurance, \$17,000. This was the largest fire in Beloit within the last five years. The fire caught from the furnace.
- C. A. McClain's mill, Livermore, Cal., burned.
- S. J. Cherry's mill, Preston, Ont., burned.
- S. S. Hugh's grist mill, Difficult, Tenn., burned.
- Weaver & Mabes's feed mill, Watervliet, Mich., burned; loss, \$3,500; insurance, \$2,000.
- The Salmon Milling Company's mill, Beloit, Wis., burned; loss, \$50,000; partially insured.
- J. T. Hardage & Co.'s grist mill and other property, Kennesaw, Ga., burned; no insurance.
- The Trowbridge flour mill at South Haven, Mich., was destroyed recently. Loss, \$10,000.
- Macon, Mo., Nov. 22.—Macon Elevator totally destroyed, together with nearly 5,000 bushels of corn and oats. Loss on building and machinery, \$10,000; insurance on building, \$2,500; on grain, \$900. The elevator and contents were property of Postmaster F. A. Dessert.
- Weaver & Mabes's feed mill at Watervliet, Mich., has been burned. Loss, \$3,000; insurance, \$2,000.
- Westminster, Md., November 20, water-power grist and saw mill of Jesse Bankert, on Meadow Branch Creek, one and one-half miles from Untown on road leading to Tyrone, destroyed. Supposed incendiary origin. Insured for \$2,500 in Farmers' Mutual Fire Insurance Company of Dug Hill, Carroll County.
- Harvey Drummond's mill at Switzer, S. C., was burned recently.
- The Rex Mill, Kansas City, was burned on the night of the 6th inst. Fire was discovered in the dust room, resulting, it is supposed, from an explosion, and the flames were not gotten under control until the handsome building was a mass of ruins. The loss will approximate \$150,000, the grain elevator and its contents being saved from the general ruin. The mill had a daily capacity of 1,500 barrels; it was built by the E. P. Allis Co. in 1893, and its capacity easily run up to 2,000 shortly after it started. A large export trade was enjoyed by the

mill. It is said that a new mill will be built, which, it is expected, will be in operation in about seven months. The mill was owned by Kehlor Bros., St. Louis, Mo.

—The St. Anthony and Dakota elevators burned at Crookston, Minn., Nov. 17. Loss, \$25,000.

Flint, Mich., Dec. 1.—The Thread Flouring Mills were destroyed by fire this evening. Upwards of 500 barrels of wheat and 500 barrels of flour were also burned. The plant was comparatively new and was owned by a local stock company. The total loss is estimated at \$45,000. Two firemen, who were overcome by heat, fell from a ladder and suffered temporary injuries.

—Auburn, N. Y., Nov. 27.—Flouring mill at Union Springs burned with its contents. Loss, \$5,000; insurance, \$3,500. It was owned by Clinton T. Backus.

—A. J. Urnston flour mill at Frankton, Ind., burned Dec. 5. Loss, \$10,000.

CHICAGO AND NORTHWEST GRANARIES COMPANY.

The fifth annual meeting was held on Tuesday afternoon, December 5, in London. Mr. H. Seton-Karr, M. P., presided, and said that the profits for the past year were the largest since the company started. They would agree with him that this was a very satisfactory showing, especially in view of the fact that the total turnover of grain had been the smallest during the history of the business. The chief reason of the large profits was the high standing and credit of their managers in Minneapolis, which had enabled them, during the tightness of the money market, to borrow the money necessary to carry on their business at comparatively moderate rates. The transfer of \$33,000 from profits to working capital account was in accordance with the original understanding with the managers that the working capital should be raised to £100,000 in order to save interest on borrowed money.

FOREIGN NOTES.

Consul General Morss reports from Paris that the wheat crop of 1894 in France is 350,000,000 bushels. He adds:

It is estimated that the crops of 1894, throughout the world, will be 35 per cent. in excess of the world's demand for consumption and seed, which, in view of the large accumulation from previous years, affords little ground for anticipating a higher range of prices in the near future.

Consul General Mason, of Frankfort, reports an enormous increase of German cereal imports from Russia under the new Russo-German treaty. In the first seven months of 1893 the Russian wheat sold in Germany aggregated about 11,000 tons; in the first seven months of the present year, 95,000 tons.

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Improve each shining minute,
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THE BIG JACOBS PLANT.

The Leading Cooperage Plant and Firm of Milwaukee and the State.

The remarkable growth of the tight and slack barrel cooperage business of B. A. Jacobs & Son, of Milwaukee, is well known to every miller of the city and to a large list of patrons out of the city who use tight or slack barrels, kiln-dried flour barrels and other products of the big Jacobs shops.

Viewing the big plant as it is to-day, it seems hardly credible that the founder, B. A. Jacobs, started the business with almost nothing in 1890. Mr. Jacobs started in business with Wm.

ness ability of a high order. He was a chip of the old block.

The firm of father and son had their office for a while at 121 Sycamore Street, but their prosperous business soon forced them into larger quarters with shipping facilities. They rented a large place on Fowler Street, and later leased the old Nunnemacher dock near the old Kraus mill. The next step in the steady development of the business into the biggest of its kind was the leasing of the Kershaw salt docks in 1887.

But the end of the increase was not to come then, by any means, and, for that matter, it has not come yet. After

B. A. Kern & Son and began to make flour barrels. The Kern trade was large and helped a good deal to lay the foundation of the great business now done annually by Jacobs & Son as the owners and operators of the biggest cooperage establishment in Milwaukee and the Northwest.

The present plant, on St. Paul Avenue and Nineteenth Street, was start-

The Miller regrets to have to add that the worthy founder of the great business, B. A. Jacobs, died last summer, after a long illness. He was one of Milwaukee's best and most reliable citizens, solid financially and popular in a wide circle of friends.

The business is now conducted by Mr. Jacobs' son, Kenneth, who has mastered every detail of the business



B. A. JACOBS.

Brigham & Co., and his original investment was \$1,000.

Mr. Jacobs soon sold out, rented desk room from Tom Mitchell, and began to deal in cooperage stock. Mr. Jacobs' rare good judgment, enterprise and great business ability showed itself at once, and his business grew rapidly.

the lease of the salt docks the father and son found that their patronage was getting so large as to demand that they have docks and trackage of their own. Accordingly, some dock property was at once occupied by the firm at Fifteenth Street and North Canal.

Jacobs & Son did not begin the man-



THE NEW PLANT.

After having his office a while with Boardman & Son, at 151 West Water Street, he started in the fall of 1886 in business with his son, Kenneth W. Jacobs, who had already, though a very young man, begun to show busi-

ness ability of a high order. He was a chip of the old block. The firm of father and son had their office for a while at 121 Sycamore Street, but their prosperous business soon forced them into larger quarters with shipping facilities. They rented a large place on Fowler Street, and later leased the old Nunnemacher dock near the old Kraus mill. The next step in the steady development of the business into the biggest of its kind was the leasing of the Kershaw salt docks in 1887. But the end of the increase was not to come then, by any means, and, for that matter, it has not come yet. After



KENNETH W. JACOBS.

ed in 1892. The next year the firm concluded that the Kern machinery was out of date, and they replaced it all with the very latest improved machinery. The capacity of the plant was increased to 3,000 flour barrels a day.

The dry kiln is on the lower floor, the second floor is devoted to the pork cooperage, and flour barrels are elevated to the third floor to be finished.

Adjoining the cooper shops is a warehouse, 60x80, and a storage house, 45x100. Tracks run the length of the plant in the rear for the car-load business, and the plant, as a whole, is a first-class one in every respect.

and who, long before his father died, showed that he was perfectly competent to run the big business. The son's continued success in the business makes him one of the foremost young business men of the city, and The Miller confidently predicts that all who may have dealings with him will have a pleasant and satisfactory experience.

The firm issues a very attractive and useful catalogue of coopers' tools.

Pontiac, Mich., Post.—Patrick Bishop, of Branch County, has tried the experiment of feeding ground wheat to hogs with the following results: On



THE OLD PLANT.

But the capacity is not yet big enough, and the firm, hardly able to keep up with the growth of their business, are preparing to make another addition for pork barrels. The sales of 1894 have already amounted to more than \$100,000, and the firm is now making about 1,000 barrels a day, and a force of seventy-five men are at work.

The firm carries a big line of cooperage stock, and received thirty-five cars of cooperage stock in November, besides small lots.

September 10th he drove 17 head, old and young, on the scales and they weighed 1,450 pounds. He fed them 40 bushels of ground wheat and paid 6 cents a hundred for grinding. He weighed them again October 23rd, after feeding the 40 bushels, and they weighed 2,600 pounds. There was a gain of 1,150 pounds, which at 4½ cents per pound, the price now paid for hogs, would amount to \$48.87, or at the rate of \$1.22 per bushel for the wheat fed.

BOOKS AND MAGAZINES.

The announcement that Harpers will print during 1895 the "Personal Recollections of Joan of Arc," written by "the most popular of living American magazine writers," has set curious persons wondering who this author is. It ought not be very difficult to find "the most popular American magazine writer." In order to attain this distinction, he or she must have written stories that were afterwards reprinted in book form, and the statistics of the circulating libraries would give some valuable hints on this point. Besides, the number of American popular magazine writers who would undertake to put into a novel the most romantic series of events in all history is not large.

The authorship of "The Breadwinners," we believe, has never been divulged. Plenty of men and women have claimed to know who wrote it, and several interesting persons have said modestly that they were the authors, but the public does not yet know whether anybody has told the truth. It remains to be seen whether the "Personal Recollections of Joan of Arc" will provoke as long a search for the writer as "The Breadwinners" did. At present "The Breadwinners" has no rival in popular anonymity; it hardly has a second.

Mrs. Kinnicute, of New York, has written an article for the December Century on "The American Woman in Politics." Mrs. Kinnicute believes in the political influence of women privately and socially, without the ballot.

An American story called "The Walking Delegate," by Rudyard Kipling, appears in the Christmas Century. The characters in the story are all horses. One of them, Muldoon, a New York car horse, "On de Belt," says Muldoon, "we don't reckon no horse worth his keep 'less he kin switch de car off de track, run her round on de cobbles, and dump her in ag'in ahead o' the truck what's blockin' him."

The art of living is just now occupying the mind of Robert Grant, and the results of his cogitations will be seen in Scribner's Magazine during the coming year. He will discuss in a lively series of papers the practical problems of life which have to be solved by the average American family of moderate income and refined tastes. The income, the home, the household expenditure, married and

single life, the education of children, the "Summer problem" for city people, and many other interesting questions will come up for treatment in fresh and animated fashion. The essays certainly promise to be entertaining.

Mrs. Rebecca Harding Davis, whose name has been of late less prominent than that of her clever son, has again taken up her pen. Her admiring readers will find in Harper's Bazar during the coming season a novel of American life entitled "Dr. Warrick's Daughters." The scene is laid in Pennsylvania and the South.

The two volumes of Frederic Masson's work, "Napoleon at Home," are in preparation by the J. B. Lippincott Company; and these will be followed by his book on "Napoleon and the Women of His Court."

DECEMBER CROP REPORT.

Monthly Statement Prepared by E. N. Thoman, Statistician.

Winter Wheat, Area—The area of wheat sown this fall as compared with last has been increased by 1.9 per cent., equaling 445,399 acres. This average indicates a total of 24,884,330 acres, as against 24,438,040 acres in 1893. The increase in the principal states are as follows: Indiana 3 per cent., Illinois 3, Missouri 3, Kansas 2, California 13; Ohio has practically the same area as was sown last year, while Michigan shows a decrease of 3 per cent.

Even though the increase is small, it comes in the nature of a surprise, as it has been confidently expected that on account of low prices there would be a decided decrease. It is possible that the good results obtained from feeding wheat is responsible for this.

Winter Wheat Condition—With the exception of Texas, Tennessee, Kentucky, Kansas and Nebraska, the wheat plant is in good condition. The average for the whole country is 94.7 per cent., against 91.5 last year, and 87.4 in 1892. Drouth has been the cause of a rather low condition in the states named. The plant in many instances is not up; where it has shown it is in a sickly condition. Rain is needed almost immediately, to give the plant sufficient vigor to carry it through the winter, especially if we should experience an open winter like that of 1893.

The averages for the principal states are: Ohio 99 per cent., Michigan 99, Indiana 96, Illinois 95, Missouri 96, Kansas 80, and California 101.—Price Current.

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7.45 a. m., New York 10.25 a. m., Boston 3.00 p. m.

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If you have an invention on hand send a sketch or photograph thereof, to-
gether with a brief description of the important features, and you will be at once
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Cut this out and send it with your inquiry.

WISCONSIN WEATHER AND CROP JOURNAL,

Official Publication of the Wisconsin Weather Service.

VOL. III.

MILWAUKEE, WIS., DECEMBER, 1894.

No. 12.

HEADQUARTERS OF THE WISCONSIN WEATHER SERVICE, MILWAUKEE, WIS.

All communications relative to this service should be addressed to the Director, Samuel C. Emery, Observer United States Weather Bureau.

NOVEMBER WEATHER REVIEW

Numerous low pressure or storm areas passed over the state during the month, the most notable of which were those occurring on the 2d and 3d, the 7th to 10th, 13th to 15th, and on the 20th. The first three of these storm disturbances caused severe gales on the lakes and general rains throughout the state, while that of the 20th resulted in high winds only.

The month, as a whole, was an extremely stormy one on the lake, and navigators report that it was the worst November in many years for sailing.

Heavy rain occurred on the 2d and 3d, upon which days nearly half of the month's precipitation was received. General rain or snow also occurred from the 7th to 13th, and after that date the only precipitation was a few light flurries of snow at scattered stations, from the 18th to 22d and the 28th and 29th. In the northern portion of the state snow lay on the ground at the beginning of the month, but in the central and southern portion the first occurred quite generally on the 7th. No heavy snowfalls are reported, but in most sections enough fell to afford protection to winter grain during the severe freezing weather near the middle and end of the month. The average snowfall was 9½ inches. The greatest, 28 inches, at Crandon, and least, a trace, at Chilton. The rainfall for the state averaged 1.65 inches, which is .28 of an inch above normal. The greatest recorded was 3.95, at Oconto, and the least, .13 of an inch, at Osceola Mills.

As to temperature, the month opened warm, and the maximum occurred on the 1st and 2d, after which came cold, freezing weather, the temperature reaching a minimum of from about zero to 10 below, on the 10th. A cold wave also visited the state on the 28th, but the month closed warm and pleasant. The average temperature for the month was 28 degrees, or 2 degrees below the normal. The highest was 64, at City Point, on the 12th; the lowest, 11 below zero, at Butternut, on the 10th.

The prevailing wind was northwest; average number of clear days, 5; partly cloudy, 11; cloudy, 14, and days with rain or snow, 6.

OBSERVERS' NOTES.

Amherst—Snow all gone except in drifts and in woods.—A. J. Smith.

Antigo—Snow on ground sufficient to protect crops from 9th to 13th and from 22d to 29th. Even depths.—A. B. Millard.

Beloit—Snow lay very evenly on ground from 7th to 13th. None on ground at end of month.—Prof. C. A. Bacon.

Belleville—Northwest gale and snow squalls on 9th. The snow that fell on the 9th and 12th disappeared with the warm south winds of the 14th and 15th. The one inch of snow that fell on the 29th nearly all disappeared on the 30th. Only a trace left.—H. E. Story.

Baraboo—Snow was all gone by the 15th inst. Ground is reasonably moist and wheat looks all right.—Wm. Toole.

Barron—First snow of the season fell on the 2nd. A severe snow storm on the 9th, and southwest winds shifting to northwest by night and blowing a gale. Ground not frozen over three inches. Winter wheat has been protected nicely so far and is looking fine, the same can be said of winter rye.—E. W. Pierce.

Black River Falls—First snow of the season fell with some rain during the night of the 2nd. Rain, snow and sleet fell on the 13th.—H. H. Powers.

Crandon—The ground was covered to a sufficient depth to afford protection to crops in ground the whole month. Snow lies in even depths; 12 inches on ground at end of month.—John Masbaum.

Chippewa Falls—The greatest amount of snow which fell during the month at one time was four inches and that was on the 8th.—P. T. Favell.

Centralia—Snow fell on the 7th and 9th, but has gradually disappeared until now there is but little left. It lay quite evenly, but never enough for sleighing. Appearances favorable for both grain and cranberries.—R. C. Worthington.

De Pere—Snow fell on the 7th, 9th, 12th, 19th, and 29th. On 7th, 9th, it melted as it fell. Ground bare on the 15th, and what little fell on the 19th and 29th was gone on the 30th. But I heard of no damage from cold.—Jos. G. Lawton.

Delavan—Very foggy on the 1st. Ponds and creeks closed up on the 11th. 30th: Ice about 8 inches thick. Many farmers were caught with corn in the shock to be husked—but most of it husked at present time. No snow on ground at end of month.—E. S. Austin.

Dubuque, Ia.—First snow of the season fell on the 2d.—T. W. Ruete.

Eau Claire—Snow covered ground well for one week. End of month the ground was bare except where well shaded.—C. W. Lockwood.

Florence—Snow covered ground entirely since 2d.—John Halter.

Grantsburg—During the month we have had a snow fall of 10½ inches.—Th. Olsen.

Hartford City—First snow of season fell on the 4th. From the 4th to the 18th the snow covered the ground evenly, sufficiently to protect all crops. From the 18th to the 29th the ground was bare and froze hard 4 inches deep.—S. T. Crandall.

Hayward—Snow enough to afford protection to crops, with the exception

that there were frequent barren spots, resulting from snow drifting.—W. E. Swain.

Harvey—The beginning of the month was extremely wet and disagreeable while the latter part was cool and dry. Winter grain is going into the winter strong and healthy and not suffering any to date. All stock are in winter quarters in good trim and fed fairly plenty.—S. N. D. Smith.

Hillsborough—First snow flakes of the fall on the 2d. Very windy on the 20th. No snow on ground at end of month.—E. V. Wernick.

Koepenick—The ground was covered from the 2d to the end of month sufficiently to protect all kinds of crops. Snow lies evenly.—E. S. Koepenick.

Lancaster—The rainfall of the morning of the 2d was mixed with snow several hours.—Edward Pollock.

Manitowoc—River frozen over on the night of the 18th and 19th.—Johanna Lups.

Neillsville—We had some warm days, which have reduced the snow. There is very little on the fields at the end of the month.—Wm. Heaslett.

Oconomowoc—The ground was covered with snow on the 8th. Heavy mist on the 22d. Labelle Lake froze over on the 24th. High wind on the 27th.—John Bender.

Osceola—Three inches of snow fell during the month but did not lie on the ground more than twenty-four hours. Very dry month. Ponds froze over on the 11th. River froze over on the 20th. Ground bare at the end of month and roads hard and smooth.—C. W. Staples.

Pepin—Winter crops were, part of the time, protected by snow and are in good condition, owing to the cloudy and calm weather. The ground is frozen. Lake Pepin froze over the 19th.—C. Stoltenburg.

Portage—The first of the month was cold and the snow remained on the ground until the middle of the month when it melted. The last of the month has been cold and the ground bare.—Anna L. Bean.

Pine River—15th—Snow lies in patches and is melting fast. 30th—There is only small patches of snow here and there.—G. H. Carpenter.

Royalton—Snow covered the ground evenly, affording some protection to crops from the 7th to 20th—at no time over 7 or 8 inches. From the 20th to 30th the smooth frozen roads made excellent wheeling. No sleighing here this month.—H. M. Corey.

Sharon—There were some snow banks at the end of the month.—J. G. Skeels.

Shawano—The ground had more or less snow on from the 7th—with light covering at end of the month in most fields and in the woods.—W. E. Wood.

Spooner—Snow on ground nearly the whole month from the 3d.—Phil. Bock.

Stevens Point—First snow of the season on the 3d. The ground has been bare most of the month. The snow not staying on ground long at a time. The Wisconsin River froze over on the 11th.—Chas. H. Towle.

Viroqua—The snow was drifted badly on the 15th. None on ground at end of month, only as it was in drifts.—F. W. Alexander.

Valley Junction—First snow of the season fell on the night of the 6th.—J. N. King.

Waukesha—The ground was bare of snow except where drifted and in shady places from the 20th to 29th. Two inches on ground at end of month.—A. V. B. Dey.

Weston—First snow of season fell on the 2d. Nine and one-half inches of snow has fallen the past month, but there was scarce an inch at end of month.—Robt. Reynolds.

West Bend—Mean relative humidity for the month 83.7 per cent. Amount of sunshine for month 31 per cent.—Rev. J. E. Terborg.

PRECIPITATION.

Except over a few areas of comparatively limited extent, November was a very dry month. On the Coast of Washington, over the Upper Michigan Peninsula, Southern New England, and portions of Florida and Georgia, the precipitation exceeded the November average, the excess amounting to from 1 to 2 inches over the Upper Michigan Peninsula, Southeastern Georgia, and Northeastern Florida. Slight local excesses are also reported from Southeastern Iowa, Northern New York, and the Northern portions of Minnesota, and North Dakota. In all other districts the precipitation was less than the average for November, marked deficiencies occurring in Texas, the Central Valleys, Lower Lake Region, and on the Middle Atlantic Coast from Southern New Jersey to North Carolina, and in the Central Gulf States.

From the Gulf Coast northward to the Missouri and Ohio Valleys, including the Lower Lake Region, from 1 to 4 inches less than the normal amount of rain fell. The deficiency on the Pacific Coast southward of Washington, was also very decided, but little rain, generally less than half an inch, having fallen in that region during the month.

Throughout the winter wheat belt the actual rainfall was generally less than 2 inches, or less than half the normal amount, and over much of the central and western portions of the cotton region the actual precipitation did not exceed one-fourth the average. Alabama and portions of Georgia, Mississippi, Arkansas and Louisiana receiving less than 1 inch, while over Western Texas, Oklahoma, and Kansas, and thence westward to Southern

Daily and Monthly Precipitation for November, 1894, Wisconsin Weather Service.

STATIONS.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	Sum.
Amherst.....	1.20																															1.05
Antigo.....	.85	.30	.10	T			.55	.30	.30	.30		.10								.10	.30											2.05
Ashtabula.....	.85						.10		.45	.10		.60								.04	.07	.30										2.04
Barron.....	.85																															1.67
Bayfield.....							.05	.05	.50	.20	T									.15	.20	.25										1.40
Beaver Dam.....	1.70						.10	.30	.30	.30		.30								T												1.30
Belleville.....	1.70						.10	.30	.30	.30		.30								T												2.85
Beloit.....	1.35						.10	.30	.30	.30		.30								T												2.85
Black River Falls.....	.85						.10	.30	.30	.30		.30								T												2.85
Burlington.....	.85						.10	.30	.30	.30		.30								T												2.85
Centralia.....	.85						.10	.30	.30	.30		.30								T												2.85
Chilton.....	1.30	.10	T				.25	.05	.31	.05		.20	.51							T												1.41
Chippewa Falls.....	T	.40		.37	.04		.10	.29	.05											T												1.74
City Point.....	.85						.10	.30	.30	.30		.30								T												2.85
Columbus.....	.85						.10	.30	.30	.30		.30								T												2.85
Crandon.....	.40						.05	.05	.05	.05		.05								.20	.30	.30										1.74
De Pere.....	1.54						.14	.21	.01	.01		.30	.43							T												2.85
De Pere.....	1.54						.14	.21	.01	.01		.30	.43							T												2.85
Dubuque.....	1.49						.05	.05	.05	.05		.05								T												2.85
Duluth.....	T	.05	.39	T	T	.04	.11	.04	.38	T		.01	.19	T						.35	T											1.49
Eau Claire.....	.05						.15		.30	.30		.30								T												1.25
Fond du Lac.....	1.10	.05					.25	.45	.02	.27										T												2.74
Graniteburg.....	.16						.60	.40	.30	.30		.30								.30	.05											1.80
Green Bay.....	1.53	.14	.18	T			.17	.10	.22	.05		.25	.04							.05	.05											2.86
Hartford.....	1.53	.14	.18	T			.17	.10	.22	.05		.25	.04							.05	.05											2.86
Harvey.....	1.35	.15	.05				.40	.05	.20	.15		.15	.35							.01												2.71
Hillabourgh.....	T	.30	.15	T			T	.60	.10	T										T												1.29
Hillsboro.....	.85						.30	.30	.30	.30		.30								T												2.40
Janeau.....	.85						.30	.30	.30	.30		.30								T												2.40
Janeau.....	.85						.30	.30	.30	.30		.30								T												2.40
Koopnick.....	.10	.40	.20				.10	.10	.30	.40		.05	.05							.30												2.00
La Crosse.....	.57	T					.50	.01	.15	.02		.12	.08							T												1.15
Lancaster.....	1.19	T					.10	.05	.30	.40		.05	.25							T												2.05
Lincoln.....	1.30	.30	.32				.05	.05	.40	.40		.10	.20																			2.05
Madison.....	.85						.21	.02	.18	.18		.10	.02							T												1.63
Manitowish.....	.05	.05	.07				.22	.02	.05	.05		.10	.04							T												2.12
Meadow Valley.....	1.19	T					.10	.05	.30	.40		.05	.25							T												2.12
Medford.....	.10	.30	.20	.10	T	.02	.02	.02	.02	.02		.20	.30							.12	.13											1.31
Menomonie.....	.25	.05	.20				.05	.20	.50	.10		.05	.05							.05	.40	T										1.93
Milwaukee.....	.55	.02					.30	.10	.15	.05		.11	.25							T												2.01
Neillsville.....	.85						.30	.30	.30	.30		.30								T												2.01
New Holstein.....	.85						.30	.30	.30	.30		.30								T												2.01
Oconomowoc.....	1.18	.04					.24	T	.27	T		.05	.14							T												2.04
Oconto.....	.64	.22	.04				.20	.73	.04	T		.10	.20							.30												2.04
Oscoda.....	1.19	.05	T				.10	.04	T	T		.04								T												2.16
Oshkosh.....	1.15						.30	.30	.30	.30		.30								T												2.16
Papin.....	.25	T	.04	T			.13	.05	.14	T		.01								T												1.78
Pine River.....	1.14	.07	T				.14	.09	.40	.07		.15	T							T												2.10
Port Washington.....	.85						.30	.30	.30	.30		.30								T												2.10
Prairie du Chien.....	1.00						.05	.05	.05	.05		.27								T												1.81
Reedsburg.....	.85						.30	.30	.30	.30		.30								T												1.80
Rhinelander.....	.85						.30	.30	.30	.30		.30								T												1.80
Royalton.....	1.56	.11	T				.33	.44	T			.20								T	.10											2.74
Sharon.....	1.30						.05	.18	.10			.40	.35							T												2.38
Shawano.....	.05	.15	.15				.05	.50	.15	.10		.15	.10							T	.05	.10										2.00
Spooner.....	.15	.15	T				.01	.15	T	T		.05	.02							T	.01	.04										.61
St. Paul.....	1.03	.13	T				.24	T	.35	.07		.10	.03							T		.05	.11									2.11
Stevens Point.....	.85						.30	.30	.30	.30		.30								T												2.11
Tomahawk.....	.85						.30	.30	.30	.30		.30								T												2.11
Valley Junction.....	.85						.30	.30	.30	.30		.30								T												2.11
Viroqua.....	.75	T					.32	.12	.10			.14								T												1.83
Watertown.....	1.18						.40	.25	.25	T		.30	.05							T												2.43
Waushara.....	.85						.30	.30	.30	.30		.30								T												2.05
West Bend.....	.85						.30	.30	.30	.30		.30								T												2.05
Westfield.....	.85						.30	.30	.30	.30		.30								T												2.05
Weston.....	.85						.30	.30	.30	.30		.30								T												2.05
Whitehall.....	.85						.30	.30	.30	.30		.30								T												2.05

* Incomplete.

Average..... 1.93

California, no appreciable amount of rain fell.

The month closes with but little snow on the ground, except over the Northern Michigan Peninsula, portions of which are covered with from 8 to 9 inches. A depth of 3 inches is reported from Northern Minnesota, and in portions of New England there is a light covering of from 1 to 2 inches. MARK W. HARRINGTON, Chief of Bureau.

PERSONAL NOTES.

Mr. J. O. Melby, of Whitehall, Wis., will attend to the duties of Voluntary Observer for the Wisconsin State Weather Service from this date. Mr. W. D. Buchholz having resigned on account of press of other business. Mr. Buchholz has been a faithful observer for some time past, and the Bureau takes this opportunity to thank him for past favors.

Mr. T. A. McCollam, of Juneau, Wis., takes up the duties of Voluntary Observer for the Wisconsin State Weather Service this month in place of Rev. A. Brown, whose resignation was handed in a few weeks since.

Prof. W. N. Parker, Superintendent of the Reedsburg Public Schools, has agreed to look after the interests of the Wisconsin State Weather Service at that place in the future, Mr. W. B. Smith having resigned.

Mr. P. P. Porter, of the Central Office, has taken advantage of a leave of absence for a few

Official Monthly Meteorological Data for November, 1894, Wisconsin Weather Service.

STATION.	COUNTY.	LOCATION OF STATIONS.			TEMPERATURE (Degrees Fah.).					PRECIPITATION.		WIND.		SKY.		PHENOMENA.		NAME OF OBSERVER.									
		Latitude North.	Longitude West.	Elevation.	Mean.	Mean Maximum.	Mean Minimum.	Highest.	Lowest.	Date.	Range.	Mean Daily Range.	Total Rain.	Greatest in 24 Hours.	Date.	Direction.	Force.		No. Days Fair.	No. Days Cloudy.	No. Days Rain or More than Fair.	Thunder storms.	Solar Halos.	Lunar Halos.	Aurora.	Comets.	
Amherst	Portage	44 28'	89 17'	1,300	27.0	38.8	20.1	52	1	-2	19	54	18.7	3.05	1.10	W	9	9	11	9						A. J. Smith.	
Antigo	Langlade	45 11'	89 10'	775	27.2	34.7	19.7	50	1	-6	28	38	15.0	2.02	.53	N	11	9	9	9						A. B. Miller.	
Ashland	Ashland	46 34'	90 54'	675	28.8	36.0	21.5	45	2	12	29	33	14.8	1.34	.35	W	10	9	9	9						E. P. Wheeler.	
Baraboo	Baraboo	45 50'	91 50'	901	28.6	38.8	17.7	48	3	-2	28	36	15.4	1.40	.50	W	9	9	9	9						Wm. Toole.	
Bayfield	Bayfield	46 47'	90 50'	600	28.7	39.4	18.0	60	1	-2	19	28	15.4	1.20	.60	NW	10	7	10	7						E. W. Pierce.	
Beaver Dam	Dodge	43 27'	88 50'	885	31.8	38.9	23.7	52	3	1	28	51	15.2	2.95	1.05	NW	10	7	10	7						Prof. F. W. Denison.	
Belleville	Dodge	42 51'	89 24'	750	28.8	37.0	20.7	51	20	0	19	51	16.2	2.25	1.70	NW	10	7	10	7						Prof. H. B. Hubbell.	
Beloit	Rock	42 30'	89 11'	750	32.5	40.2	24.1	54	2	0	10	48	16.8	2.50	1.28	NW	10	4	12	4						H. E. Story.	
Black River F. S.	Jackson	41 18'	90 55'	888	27.2	37.5	16.9	52	5	-3	19	55	20.6	2.15	.68	SE	12	2	18	7	2	1				Prof. Chas. A. Bacon.	
Butternut	Ashland	46 27'	90 30'	1,400	18.8	28.2	9.8	43	26	-11	19	51	18.9	.90	.35	W	8	1	1	1						H. H. Powers.	
Chilton	Wood	44 24'	89 51'	925	27.8	35.5	19.0	52	1	-8	19	55	14.1	.85	.35	W	10	10	10	10						J. J. Hayden.	
Chippewa	Calumet	44 2'	88 8'	925	29.0	36.8	21.5	51	1	1	10	50	15.5	2.10	1.20	SW	10	10	10	10						R. C. Worthington.	
Chippewa Falls	Chippewa	44 56'	91 23'	925	27.0	36.2	17.9	64	12	-5	19	59	18.5	1.74	.41	NW	2	9	9	9						John G. Nagler.	
City Point	Jackson	44 19'	90 20'	930	27.0	35.5	18.8	52	7	1	19	51	16.7	2.35	1.06	NW	2	9	9	9						P. T. Favell.	
Columbus	Langlade	45 19'	89 7'	930	27.0	35.5	18.8	52	7	1	19	51	16.7	2.35	1.06	NW	2	9	9	9						W. H. Dufrene.	
Crandon	Forest	45 30'	88 52'	1,180	29.7	36.4	23.1	48	10	0	19	58	16.2	2.80	1.70	NW	10	18	8	7						John Erb.	
Delavan	Walworth	42 39'	88 59'	920	30.8	38.8	22.8	53	2	0	10	47	16.0	2.18	1.31	NW	8	9	18	5						Jno. Masbaum.	
De Pere	Brown	44 26'	88 8'	600	29.8	36.8	23.8	52	2	3	1	19	51	18.0	2.37	1.29	NW	8	8	18	5						Elwood S. Austin.
Dubuque	Dubuque	42 30'	90 44'	691	33.2	40.6	25.9	52	1	6	19	56	14.7	1.88	1.40	NW	10	7	11	4						Jos. G. Hubbell.	
Duluth (Minn.)	St. Louis	46 48'	92 8'	670	26.2	31.9	20.4	48	1	-8	22	54	11.5	1.48	.86	NW	10	10	10	10						T. W. Ruess.	
Eau Claire	Eau Claire	44 48'	91 30'	800	26.0	35.0	17.0	52	2	-1	19	58	16.0	1.28	.60	NW	10	2	22	2						Jas. Kenaley.	
Florence	Florence	45 57'	88 14'	1,264	24.4	31.6	17.2	51	1	-6	19	57	14.4	2.74	1.85	NW	10	8	10	7						C. W. Lockwood.	
Fond du Lac	Fond du Lac	44 48'	88 28'	756	29.4	35.8	23.0	50	2	1	19	49	12.5	2.16	1.10	NW	10	10	10	10						John Hater.	
Grantburg	Brown	44 47'	92 4'	1,130	30.0	38.5	16.5	60	1	1	19	50	11.5	1.48	.86	NW	10	10	10	10						W. H. Bettis.	
Green Bay	Green Bay	44 31'	88 0'	916	29.8	35.5	24.1	51	2	1	10	50	11.5	2.86	1.53	NW	8	9	19	11						Th. Olsen.	
Hartford	Washington	43 18'	82 22'	28.8	30.2	37.8	23.0	59	1	1	19	48	14.9	8.00	1.86	NW	10	11	11	10						F. W. Conrad.	
Harvey	Jefferson	43 24'	88 52'	897	30.2	37.8	23.0	59	1	1	19	48	14.9	8.00	1.86	NW	10	11	11	10						S. T. Crandal.	
Hayward	Sawyer	45 14'	91 34'	914	21.0	31.4	10.5	48	1	-10	19	49	11.3	1.68	.88	NW	10	4	5	21						N. D. Smith.	
Hillsborough	Verona	43 45'	90 20'	878	31.8	37.5	26.2	50	1	6	19	49	11.3	1.68	.88	NW	10	4	5	21						W. E. Swain.	
Janeville	Rock	42 41'	89 8'	818	32.8	37.5	21.9	47	1	1	19	48	10.9	1.54	.86	SW	10	2	23	4						Prof. E. V. Wernick.	
Juneau	Dodge	43 23'	88 49'	941	28.7	35.5	18.8	52	7	1	19	51	16.7	2.35	1.06	NW	10	9	17	8						S. C. Burroughs & Co.	
Koepenick	Langlade	45 28'	89 11'	1,083	26.7	35.5	18.8	52	7	1	19	51	16.7	2.35	1.06	NW	10	9	17	8						A. McCollum.	
La Crosse	La Crosse	43 49'	91 15'	744	29.7	36.4	23.1	48	10	0	19	58	16.2	2.80	1.70	NW	10	2	25	18						E. S. Koepenick.	
Lancaster	Grant	42 50'	90 45'	1,070	28.2	37.1	19.4	54	26	2	19	52	17.7	2.06	1.10	NW	10	4	25	18						W. U. Simons.	
Lincoln	Kewaunee	44 37'	87 45'	818	34.4	41.6	27.2	53	1	10	19	42	2.18	1.30	.65	SW	10	4	25	18						Edw. Pollock.	
Madison	Dane	43 04'	89 25'	855	32.0	36.6	27.3	48	24	4	19	44	9.5	1.63	.96	SW	10	2	23	10						A. J. Loose.	
Manitowish	Manitowish	44 7'	87 45'	658	30.8	37.2	21.4	50	2	1	19	47	12.8	2.12	1.00	NW	10	4	23	10						Washburn Observatory.	
Meadow Valley	Juneau	44 12'	90 15'	900	26.0	39.0	14.3	50	4	-5	11	55	24.7	1.21	.60	NW	8	8	21	9						Miss Johanna Laps.	
Medford	Taylor	45 10'	90 20'	1,420	24.8	33.1	16.6	51	1	-9	19	60	16.5	1.58	.50	NW	10	8	19	11						J. H. Treat.	
Menomonie	Dunn	44 51'	91 55'	915	21.8	33.2	10.4	52	1	-10	19	62	22.8	1.86	.50	NW	10	8	19	11						Dr. F. Robt. Zeit.	
Milwaukee	Milwaukee	43 02'	87 54'	678	31.8	37.5	26.2	50	2	6	19	49	11.3	1.68	.88	NW	10	2	21	17						A. Pillsbury.	
Neillsville	Clark	44 30'	90 35'	600	26.8	38.1	20.5	50	1	-4	19	51	16.2	2.01	.85	NW	10	9	23	10						Central Office.	
New Holstein	Calumet	43 57'	88 5'	925	27.0	35.5	18.8	52	7	1	19	51	16.7	2.35	1.06	NW	10	9	23	10						Wm. Heaslett.	
Oconomowoc	Waukesha	43 7'	88 31'	858	31.2	38.2	24.1	52	2	4	19	48	14.1	2.09	1.10	NW	10	9	23	10						Aug. A. Paulsen.	
Oconto	Oconto	45 11'	89 58'	908	29.8	38.4	19.3	53	1	1	19	52	17.1	3.96	1.64	NW	10	17	21	11						Jno. Bender.	
Oscoda Mills	Polk	45 22'	92 45'	806	24.5	34.1	14.8	54	1	-5	28	59	19.8	1.08	.05	NW	10	8	21	8						Wm. K. Smith.	
Oshkosh	Winnebago	44 0'	88 38'	765	31.0	39.1	22.9	49	1	0	20	49	16.2	1.85	1.10	NW	10	8	21	8						C. W. Staples.	
Peshigo	Peshigo	44 0'	88 38'	765	31.0	39.1	22.9	49	1	0	20	49	16.2	1.85	1.10	NW	10	8	21	8						Prof. A. H. Sage.	
Pine River	Vausara	44 28'	92 11'	691	27.8	37.3	18.5	49	3	-4	18	60	19.0	.78	.22	NW	10	8	22	8						C. Stoltenberg.	
Portage City	Portage	44 28'	87 51'	875	28.6	36.7	20.5	50	1	-1	19	51	16.2	2.03	1.14	NW	10	8	21	8						W. E. Carpenter.	
Pt. Washington	Ozaukee	44 32'	89 29'	800	32.4	40.2	24.5	52	2	8	19	49	15.7	1.61	.58	NW	10	6	21	12						Anna L. Bean.	
Prairie du Chien	Crawford	43 27'	91 8'	690	28.2	41.0	15.4	59	15	0	28	59	25.6	1.50	1.00	NW	10	2	20	10						S. C. Kann.	
Reedburg	Sauk	42 31'	90 30'	690	28.8	37.7	19.4	49	26	1	19	48	15.8	1.25	.88	NW	10	9	20	10						Frank Cornelius.	
Rhinelander	Oneida	45 57'	89 30'	925	27.0	35.5	18.8	52	7	1	19	51	16.7	2.35	1.06	NW	10	9	20	10						W. N. Parker.	
Royalton	Walpaca	42 30'	88 48'	900	28.4	35.3	21.6	56	2	-2	19	58	18.7	2.74	1.56	NW	10	9	20	10						Wm. W. Carr.	
Sharon	Walworth	42 30'	88 48'	900	28.8	37.0	20.7	51	1	-2	27	52	18.5	2.88	2.00	NW	10	9	20	10						Rev. E. M. Corey.	
Shawano	Shawano	44 48'	88 59'	800	28.8	37.0	20.7	51	1	-3	19	54	17.8	8.00	2.01	NW	10	9	20	10						J. O. Skeels.	
Spooner	Waushara	45 51'	91 58'	925	25.9	34.6	17.0	51	1	0	18	51	17.6			NW	10	9	20	10						Col. W. B. Wood.	
Stevens Point	Portage	44 31'	89 34'	1,118	27.8	35.4	20.1	50	1	-9	19	53	15.3	2.11	1.08	NW	10	9	20	10						Phillip Beck.	
St. Paul (Minn.)	Ramsey	44 58'	93 8'	931	27.5	34.9	20.1	50	8	-2	28	55	14.8	.61	.1												

	BAROMETER.					Total Movement.	WIND.				
	Mean.	Highest.	Lowest.	Date.	Average Hourly.		Max. Velocity.	Direction.	Date.		
Duluth.....	30.05	30.81	29.22	15	5075	7.0	84	NW	10		
Green Bay.....	30.07	30.78	29.38	15	6911	9.6	84	NW	20		
La Crosse.....	30.11	30.81	29.35	15	6878	8.8	84	NW	20		
Milwaukee.....	30.08	30.71	29.45	15	8129	11.3	83	SW	20		
St. Paul.....	30.11	30.82	29.29	15	6881	4.0	84	NW	20		
West Bend.....	30.05	30.59	29.25	15	18	8W		

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